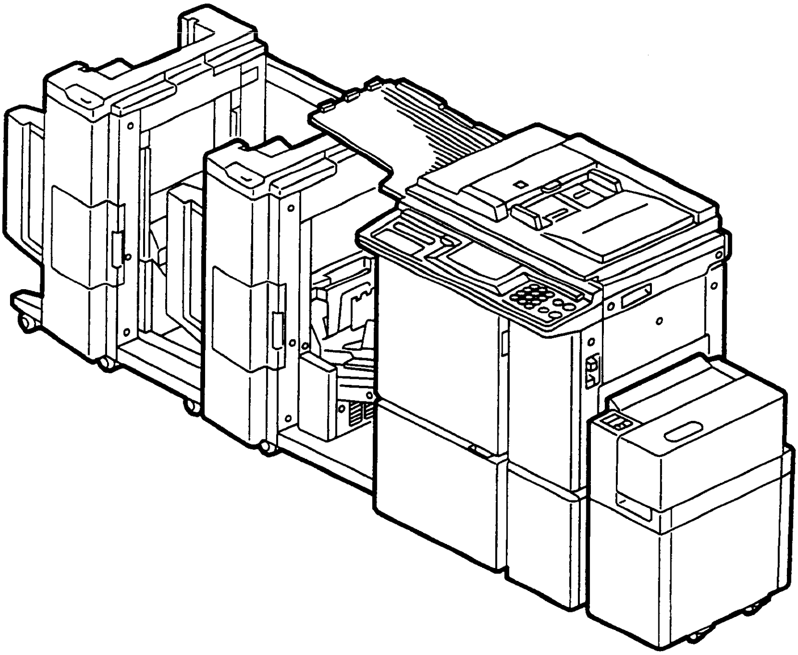
RICOH

Priport VT3800



Operating Instructions

In accordance with ISO Standard 7001, this machine uses the following symbols for the main switch:

| means POWER ON.

○ means POWER OFF.

⏻ means STAND BY.

For good print quality, Ricoh recommends that you use genuine Ricoh master and ink.

Ricoh shall not be responsible for any damage or expense that may result from the use of parts other than genuine Ricoh parts in your Ricoh office product.

Two kinds of size notation are employed in this manual. With this machine refer to the inch version.

Note: Some illustrations may be slightly different from your machine.

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INTRODUCTION

This manual contains detailed instructions on the operation and care of this machine. To get maximum versatility from this machine, all operators should read and follow the instructions in this manual. Please keep this manual in a handy place near the machine.

SAFETY INFORMATION

When using your machine, the following safety precautions should always be followed:

Safety During Operation

In this manual, all safety messages are identified by the words "WARNING" and "Caution". These words mean the following:

⚠ ***WARNING:*** ***Important information to alert you to a situation that might cause serious injury and damage to your property if instructions are not followed.***

⚠ *Caution: Important information on how to prevent damage to your equipment, or how to avoid a situation that might cause minor injury.*

– WARNING –

☐ ***Do not modify or replace any parts other than the ones specified in this manual.***

☐ ***Since some parts of the machine are supplied with high voltage, touch only the parts specified in this manual.***

☐ ***Do not operate the machine without covers. You might get your fingers caught in the machine, or the machine might be damaged because, for example, dust or the like might get inside it.***

☐ ***Since some parts of the machine are sharp and might cause injury, touch only the parts specified in this manual.***

– Caution –

- While printing, do not turn off the main switch.
- While printing, do not open the door or covers.
- While printing, do not unplug the power cord.
- While printing, do not move the machine.
- Keep corrosive liquids, such as acid, off the machine.
- Do not allow paper clips, staples, or other small objects to fall inside the machine.
- Open and close the door and covers softly.
- Do not put anything except originals or command sheets on the machine.
- Do not spill liquid on the machine.
- When opening or closing the door or covers, keep hold of them so they don't full.
- If you clean rubber parts with benzine, wipe them with a dry cloth afterwards.

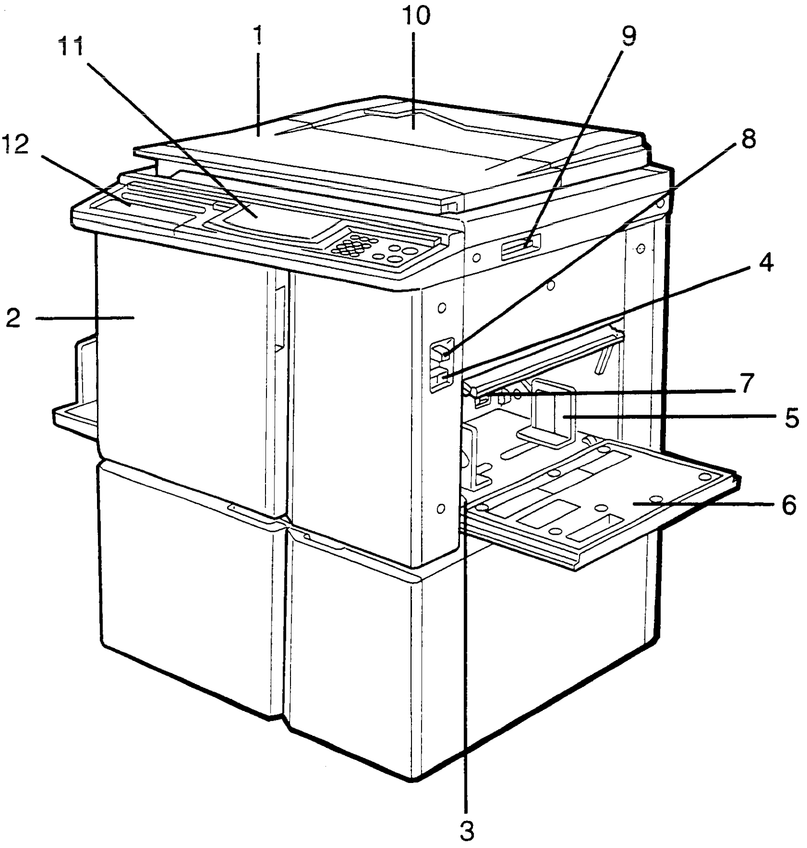
General Safety Information

- Always turn the machine off when you have finished printing for the day.
- When the machine will not be used for long periods, disconnect the power cord.
- If the machine must be transported by vehicle, please contact your service representative.

Section 1

GUIDE TO COMPONENTS

Machine Exterior


10
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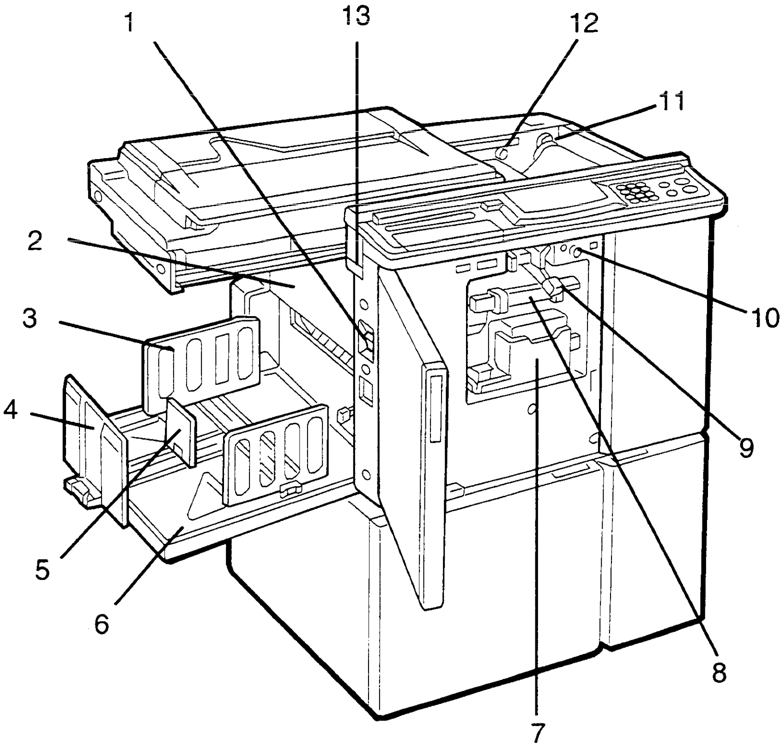
1.	**Platen Cover**	Lower this cover over an original before printing.
2.	**Front Door**	Open for access to the inside of the machine.
3.	**Side Plate Fine Adjusting Dial**	Use to shift the paper feed table sideways.
4.	**Paper Feed Table Down key**	Press to lower the paper feed table.
	or **Change Paper key**	When you have an optional large capacity tray, this key is used to remove paper.
5.	**Paper Feed Side Plates**	Use to prevent paper skew.
6.	**Paper Feed Table**	Set paper on this table for printing.
7.	**Separation Roller Pressure Levers**	Use to adjust the separation roller pressure to prevent double feed.
8.	**Feed Roller Pressure Lever**	Use to adjust the contact pressure of the paper feed roller according to paper thickness.
9.	**Original Table Release Lever**	Use to open the original table unit when installing the master.
10.	**Original Holder**	Convenient place for holding originals while operating the machine.
11.	**Operation Panel**	Operator controls and indicators are located here. ☛ See page 6.
12.	**Behind Cover**	Open to access the **CS Mode** key and so on. ☛ See page 6.

Machine Interior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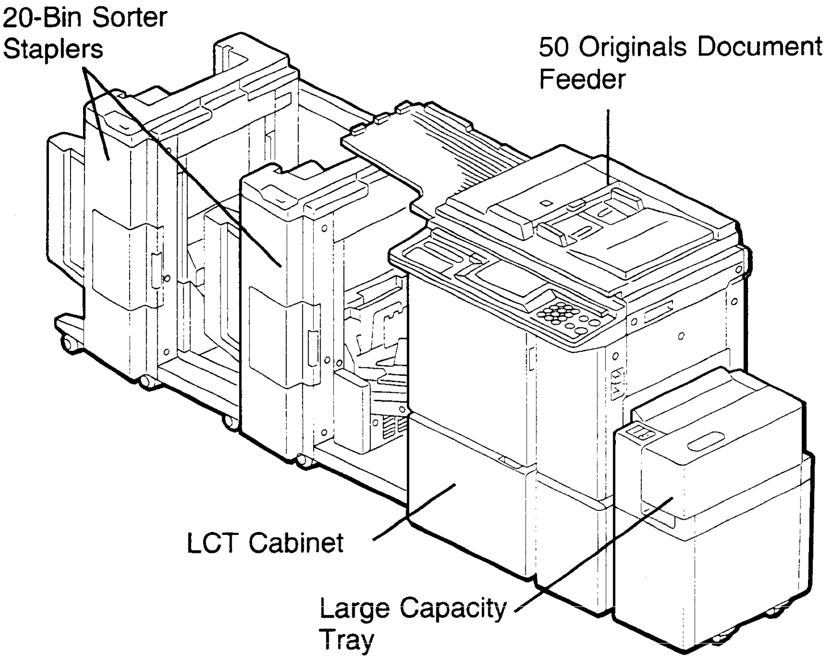
7

1.	**Main Switch**	Use to turn the power on or off.
2.	**Master Eject Container Cover**	Open when removing the master eject box.
3.	**Paper Delivery Side Plates**	Use to align the prints on the paper delivery table.
4.	**Paper Delivery End Plate**	Use to align the leading edge of prints larger than A4, 8½" x 11".
5.	**Small Size Paper Delivery End Plate**	Use to align the leading edge of prints that are A4, 8½" x 11" or smaller.
6.	**Paper Delivery Table**	Completed prints are delivered here.
7.	**Ink Holder**	Set the ink cartridge in this holder.
8.	**Drum Unit**	The master is wrapped around this unit.
9.	**Drum Unit Lock Lever**	Lift to unlock and pull out the drum unit.
10.	**Drum Rotation Button**	Press to rotate the drum unit.
11.	**Pressure Release Lever**	Use to install the master roll.
12.	**Master Cut Button**	Press this button to cut the master leading edge after installing a new master roll.
13.	**Master Eject Unit Open Button**	Press to remove misfed paper or a misfed master.

Options

This machine can be provided with the following options:

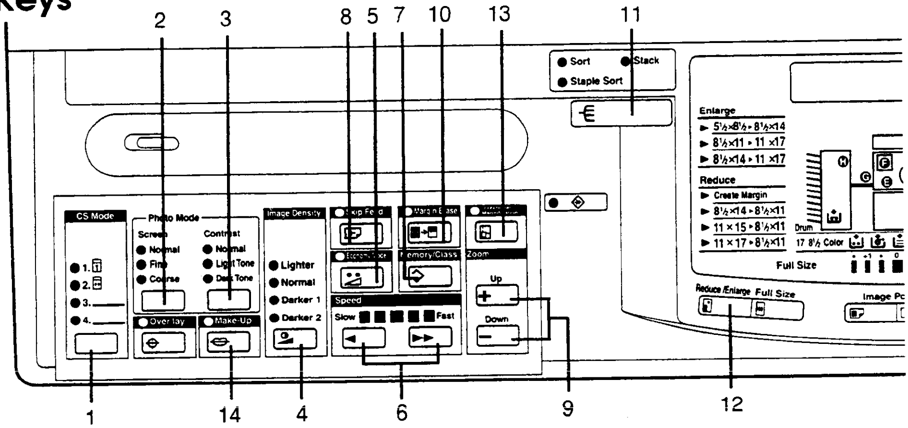

20-Bin Sorter
Staplers
50 Originals Document Feeder
LCT Cabinet
Large Capacity Tray

*Other options: 20 Originals Document Feeder
Color Drums
A3 drum (red, blue, green, brown, yellow, purple, navy, and maroon)
A4 drum (black, red, blue, green, brown, yellow, purple, navy, and maroon)
Tape Dispenser
Key Counter
Cabinet
Make-up

- ❒ If you have sorter staplers and you want to have a document feeder, the 50 originals document feeder should be equipped with your machine.
- ❒ Sorter staplers and a tape dispenser cannot be equipped together.

Operation Panel

Keys


2
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8
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13
11
Sort
Stack
Staple Sort
CS Mode
1.
2.
3.
4.
Photo Mode
Screen
Normal
Fine
Coarse
Contrast
Normal
Light Tone
Dark Tone
Overlay
Make-Up
Image Density
Lighter
Normal
Darker 1
Darker 2
Skip Feed
Margin Erase
Economy Mode
Memory/Class
Speed
Slow
Fast
Zoom
Up
Down
Enlarge
5½×8½ ▸ 8½×14
8½×11 ▸ 11 ×17
8½×14 ▸ 11 ×17
Reduce
Create Margin
8½×14 ▸ 8½×11
11 × 15 ▸ 8½×11
11 × 17 ▸ 8½×11
Drum
17 8½ Color
Full Size
Reduce/Enlarge
Full Size
Image Po
1
14
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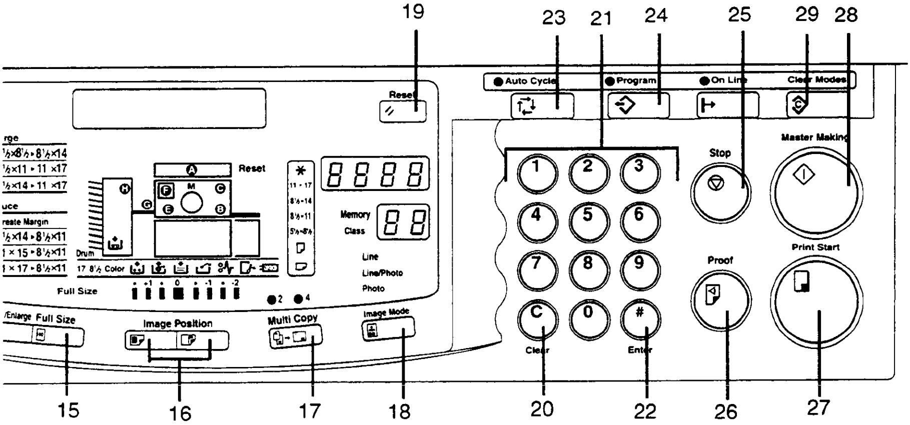
12

1. **CS Mode key**
   ☛ See pages 68 and 117.
2. **Screen key**
   Press to select the screen image. ☛ See page 43.
3. **Contrast key**
   Press to select the contrast. ☛ See page 43.
4. **Image Density key**
   Press to make prints darker or lighter. ☛ See page 23.
5. **Economy Mode key**
   Press to save ink. ☛ See page 44.
6. **Speed keys**
   Press to adjust the printing speed. ☛ See pages 23 and 24.
7. **Memory/Class key**
   Press to select Memory or Class mode. ☛ See pages 47 and 50.
8. **Skip Feed key**
   Press to select skip feed printing. ☛ See page 59.
9. **Zoom up/down keys**
   Press to alter the reproduction ratio in 1% increments from 50% to 200%. ☛ See page 30.
10. **Margin Erase key**
    Press to print book originals that have a solid image on the edges. ☛ See page 38.
11. **Sort key (for the optional sorter stapler)**
    Press to select Sort, Staple Sort, or Class Sort mode. ☛ See page 80.
12. **Reduce/Enlarge key**
    Press to reduce or enlarge the image. ☛ See page 26.
13. **Directional Magnification key**
    Press to specify a different reproduction ratio for each direction. ☛ See page 31.
14. **Make Up key**
    Press to use the optional Make-up function. ☛ See section 2.


19
23
21
24
25
29
28
Reset
Auto Cycle
Program
On Line
Clear Modes
Stop
Master Making
Memory
Class
Line
Line/Photo
Photo
Proof
Print Start
Full Size
Image Position
Multi Copy
Image Mode
Clear
Enter
15
16
17
18
20
22
26
27

15. Full Size key
Press to make full size prints.

16. Image Position keys
Press to shift the image forwards or backwards. ☛ See page 21.

17. Multi Copy key
Press to combine originals onto 1 print. ☛ See pagse 54 and 73.

18. Image Mode key
Press to select Line, Photo, or Line/Photo mode. ☛ See page 42.

19. Reset key
Press to reset error indicators. ☛ See page 168.

20. Clear key
Press to change the number set in the counter.

21. Number keys
Press to enter the number of prints and data.

22. Enter key
Press to input data into memory.

23. Auto Cycle key
Use to process the master and make prints automatically. ☛ See page 45.

24. Program key
Press to input or recall user programs. ☛ See page 61.

25. Stop key
Press to stop the machine operation.

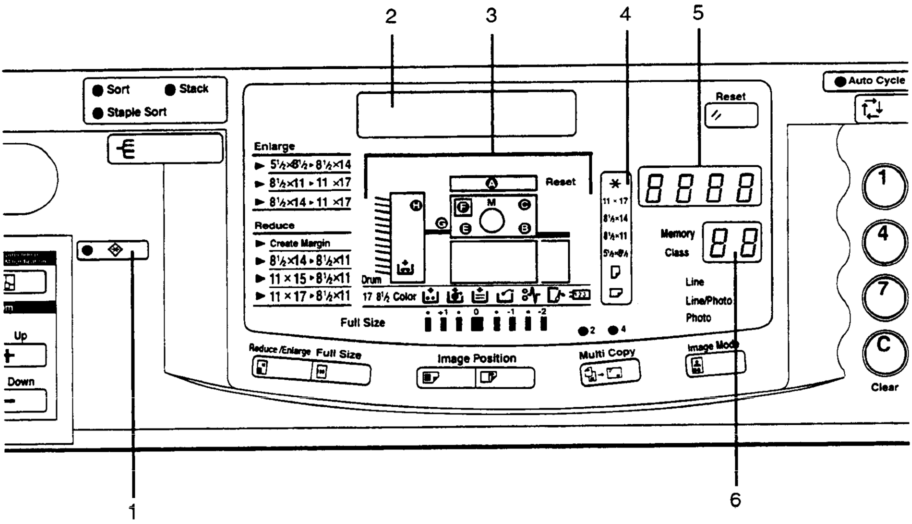
26. Proof key
Press to make proof prints.

27. Print Start key
Press to start printing.

28. Master Making key
Press to make a master.

29. Clear Modes key
Press to cancel all previously entered settings.

Indicators


2
3
4
5
Sort
Stack
Staple Sort
Enlarge
5½×8½▸8½×14
8½×11▸11×17
8½×14▸11×17
Reduce
Create Margin
8½×14▸8½×11
11×15▸8½×11
11×17▸8½×11
Drum
17 8½ Color
Full Size
+1 0 -1 -2
Reset
A
M
C
B
E
F
G
H
11×17
8½×14
8½×11
5½×8½
Reset
Memory
Class
Line
Line/Photo
Photo
●2 ●4
Auto Cycle
1
4
7
C
Clear
Up
Down
Reduce/Enlarge
Full Size
Image Position
Multi Copy
Image Mode
1
6

1. **Special Feature indicator**
   This indicator is lit when you press keys under the cover on the operation panel.
2. **Guidance Display**
   Displays the machine's condition.
3. **Monitors**
   The monitors light up or blink when a non-standard condition occurs within the machine. ☛ See page 161.
4. **Paper Size and Direction indicators**
   Indicates print paper size and direction.
5. **Counter**
   Displays the number of prints entered. While printing, it shows the number of prints remaining.
6. **Memory/Class indicator**
   Shows the number entered in Memory mode or Class mode.

INSTALLATION REQUIREMENTS

The machine's location should be carefully chosen because environmental conditions can affect its performance.

Optimum Environmental Conditions

- ☐ Temperature: 10 – 30°C, 50 – 86°F
- ☐ Humidity: 20 – 90% RH
- ☐ A strong and level base (a sturdy desk and cabinet etc.).
- ☐ The machine must be level within 5 mm, 13/64" both front to rear and left to right.
- ☐ Make sure to locate this machine in a large well ventilated room that has an air turnover of more than 30 m^3/hr/person.

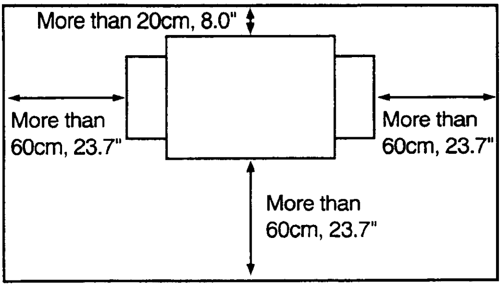
Environments To Avoid

- ☐ Direct sunlight or strong light (more than 1500 lux).
- ☐ Locations directly exposed to cool air from an air conditioner or heated air from a heater. (Sudden temperature changes from low to high or vice versa may cause condensation within the machine.)
- ☐ Dusty areas.

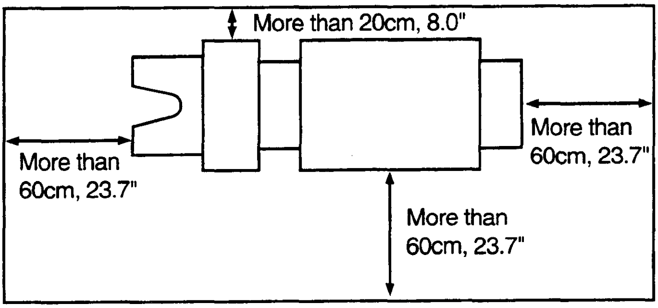
Access To The Machine

- ☐ Place the machine near a power source, providing clearance as shown.

Main Frame



Main Frame With Optional Sorter Stapler


More than 20cm, 8.0"
More than 60cm, 23.7"
More than 60cm, 23.7"
More than 60cm, 23.7"

Power Connection

Main Frame

- ❒ Securely connect the power cord to an dedicated 120 V, 60 Hz power source which supplies less than 4.0 A.
- ❒ Make sure the plug is firmly inserted in the outlet.
- ❒ Avoid multiwiring.
- ❒ Do not pinch the power cord.
- ❒ Make sure that the wall-outlet is near the machine and easily accessible.

Optional Sorter Stapler

- ❒ Securely connect the power cord to an dedicated 120 V, 60 Hz power source which supplies more than 3.0 A.
- ❒ The socket out-let must be near this equipment and easily accessible.

OPERATION

Printing Paper

☐ The following types of print paper are not recommended for this machine.

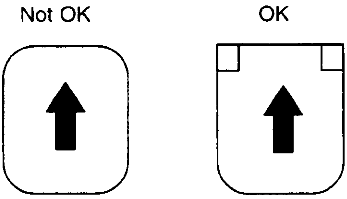
- Paper smaller than 90 mm x 148 mm, 3.6" x 5.9"
- Paper larger than 297 mm x 432 mm, 11.6" x 17.0"
- Paper heavier than 209.3 g/m^2, 55.6 lb
- Paper lighter than 47.1 g/m^2, 12.5 lb
- Roughly-cut paper
- Paper of different thickness in the same stack
- Buckled or curled paper
- Short grain paper
- Low stiffness paper

☐ A3 (297 x 420 mm), 11" x 17", originals or printing paper can be used but the maximum print area is 290 x 415 mm, 11.4" x 16.3". Select Reduce mode when you want to print the entire image of an A3, 11" x 17" original.

☐ Correct curls in the paper before setting it in the machine. When you cannot correct the paper curl, stack the paper with the curl face down. Otherwise the paper might wrap around the drum or stains might appear.

☐ Store paper where it will not curl or absorb moisture. Use paper soon after it is unpacked.

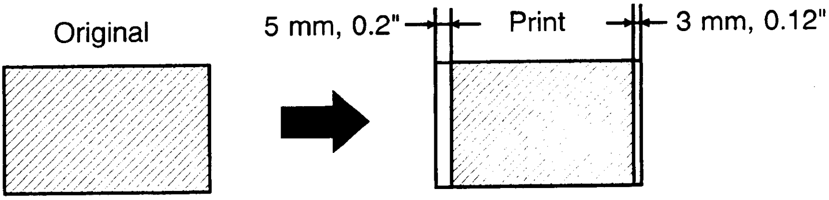
☐ Only use paper where the leading edge has two right angle corners, as shown below.



Originals

- Under the following conditions, the machine might not detect the original on the exposure glass. If you press the **Master Making** key again, the machine will start making a master anyway.
  - When you set a dark original on the exposure glass.
  - When the original is not centered according to the size marks on the left scale.
  - If you do not open the platen cover at an angle of more than 25 degrees with the exposure glass when you replace originals.

- The maximum original size you can set on the exposure glass is 307 x 432 mm, 12" x 17".
- If you use paste-up originals, make sure the pasted parts hold firmly to the base sheet. If the thickness of the paste-up original is more than 0.2 mm, 2/250" and the space between the pasted parts is less than 2 mm, 2/25", a shadow might appear on the prints.
- If you use originals that have bold letters or solid images at the leading edges, you might get prints with dirty edges. In this case, insert the widest margin first, or raise the printing speed.
- The first 5 mm, 0.2" of the leading edge and the last 3 mm, 0.12" of the trailing edge cannot be printed. Make sure the leading edge margin is at least 5 mm, 0.2" and the trailing edge margin is at least 3 mm, 0.12".

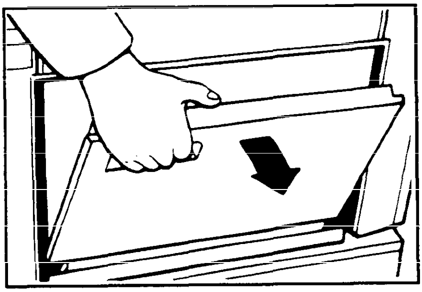


Preparation For Printing

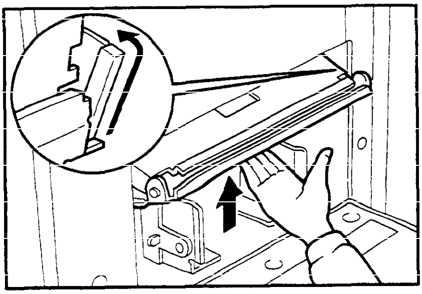
- ☛ See page 95 when you load paper in the optional large capacity tray.
- ☛ See page 101 when you load paper in the optional paper cassette for LCT.

Loading paper

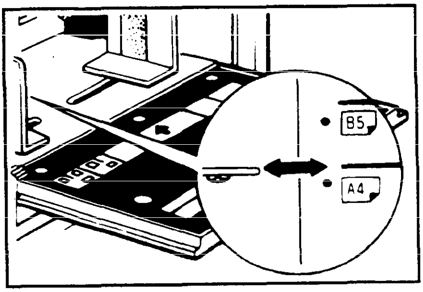
1. Carefully open the paper feed table.



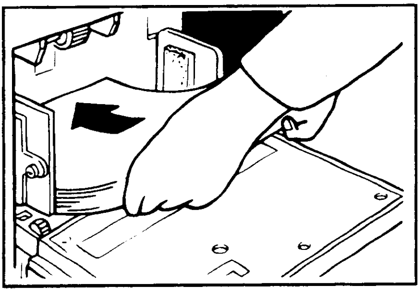
2. Push the paper feed plate up.



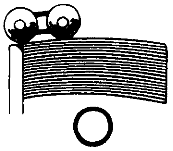
3. Adjust the side plates to match the paper size.

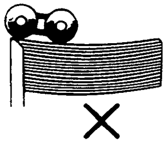


4 Place the paper on the paper feed table.

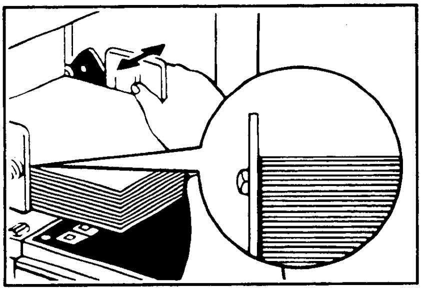


- ❐ Correct the paper curl before setting the paper. If you cannot do so, stack the paper with the curl face down as shown.



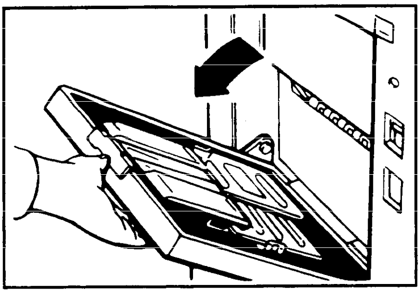


5 Make sure that the paper feed side plates contact the paper lightly.

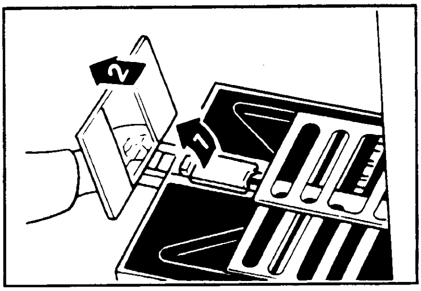


Setting up the paper delivery table

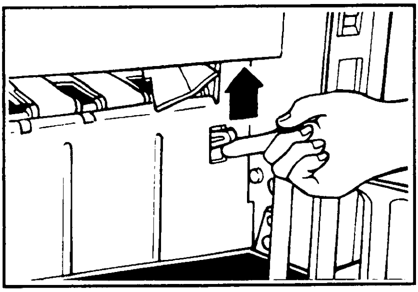
6 Open the paper delivery table.



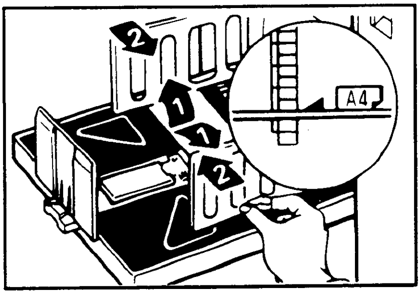
7 Lift the paper delivery end plate and move it to match the print paper size.



8 If printing on A3, 11" x 17", or larger paper, push up the wing guide release lever. If you want to print on paper smaller than A3 or 11" x 17", push down the release lever.

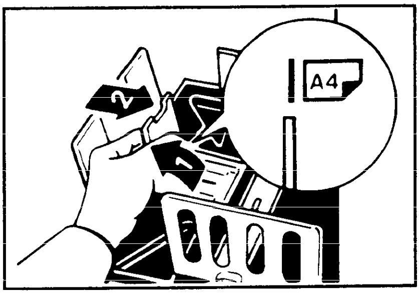


9 Lift the paper delivery side plates and adjust them to the paper size.

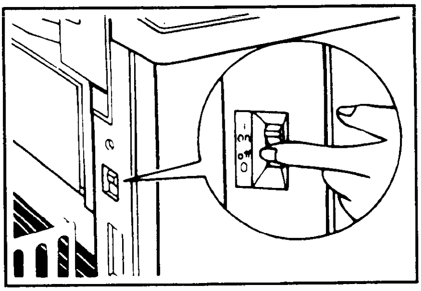


10 If you want to use A4, 81/2" x 11" or smaller paper, lift the small size paper delivery end plate and move it to match the print paper size.

❒ When you use B4, 81/2" x 14" or larger size paper, you do not need to lift the small size paper delivery end plate.



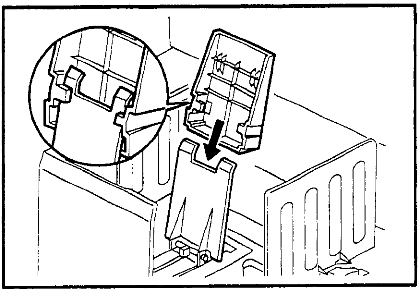
11 Turn on the main switch.



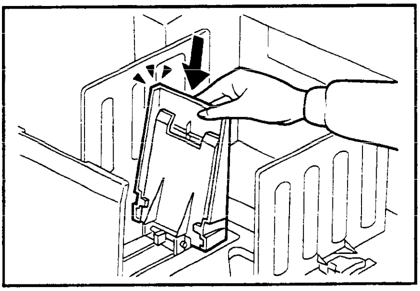
Setting the small size end plate prop

If A4, 81/2" x 11" or smaller paper is not delivered to the paper delivery table properly, set the small size end plate prop to the small size paper delivery end plate.

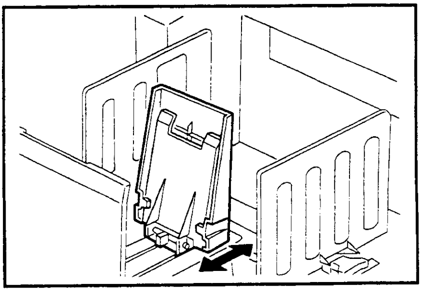
1. Set the small size end plate prop to the small size paper delivery end plate as shown in the illustration.



2. Slide the prop until it locks in position.

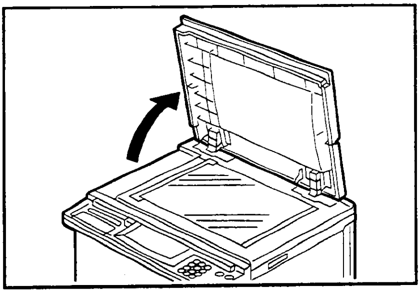


3. Adjust the main frame side of the prop to match the paper size.

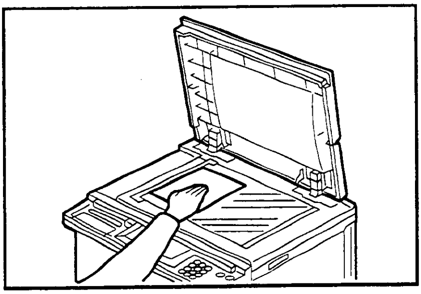


Standard Printing

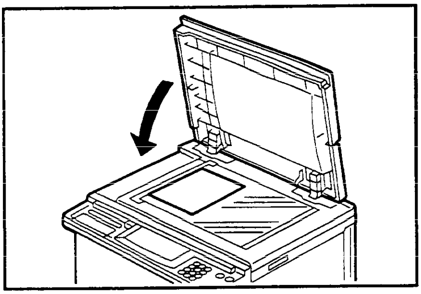
1 Open the platen cover.



2 Place the original face down on the exposure glass. The original should be centered according to the size marks on the left scale.

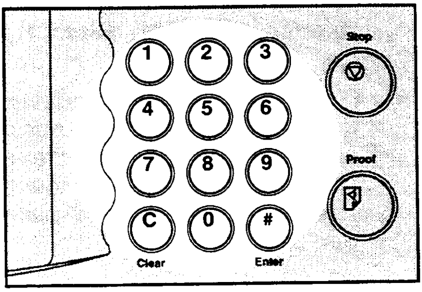


3 Lower the platen cover.



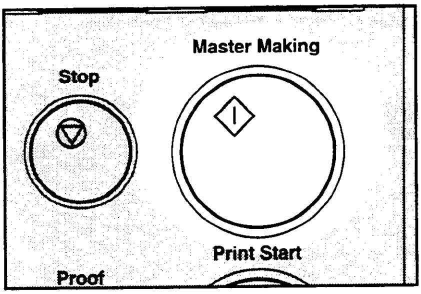
4 Enter the number of prints required using the **Number** keys.

- Up to 9999 prints can be entered at one time.
- To change the number entered, press the **Clear** key and then enter the new number.



5 Press the **Master Making** key.

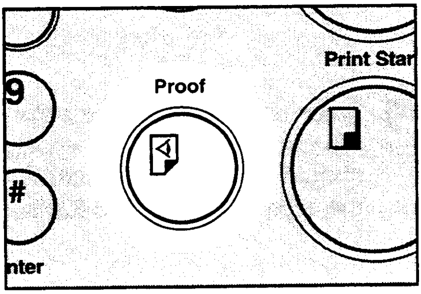
❐ A trial print is delivered to the paper delivery table.


Master Making
Stop
Print Start
Proof

6 Press the **Proof** key and check the image density and the image position of the proof print.

❐ If the image position is not correct, adjust it using the **Image Position** keys or the fine adjustment dial. (☛ See pages 21 and 22.)

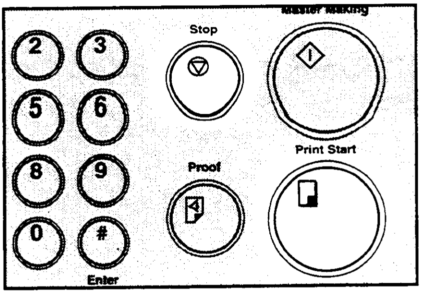
❐ If the image density is slightly dark or light, adjust the image density by pressing the **Speed** keys. (☛ See page 23.)


Print Star
Proof
9
#
nter

7 Press the **Print Start** key.

❐ After printing is completed, the same number of prints is automatically set for the next job.

❐ If you want to stop the machine during a print run, press the **Stop** key.


Master Making
Stop
2
3
5
6
8
9
0
#
Enter
Print Start
Proof

8 Remove the prints from the paper delivery table.

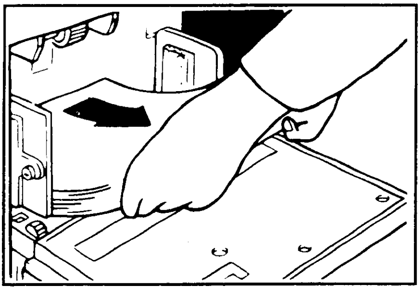
❐ To clear all the modes you have selected, press the **Clear Modes** key.

❐ If A4, 81/2" x 11" or smaller paper is not delivered to the paper delivery table properly, set the small size end plate prop to the small size paper delivery end plate. ☛ See page 16.

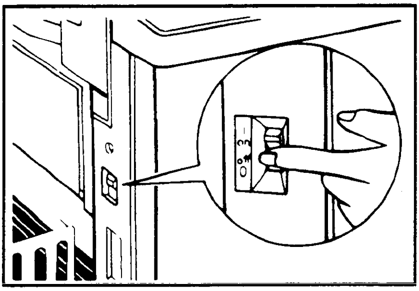
Restoring Paper Feed And Paper Delivery Tables

1 Remove the paper from the paper feed table.

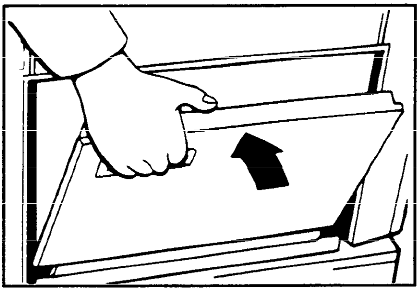
❒ The paper feed table will lower.



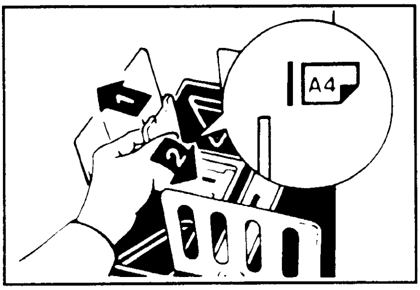
2 Turn off the main switch.



3 Push the paper feed plate down and close the paper feed table.

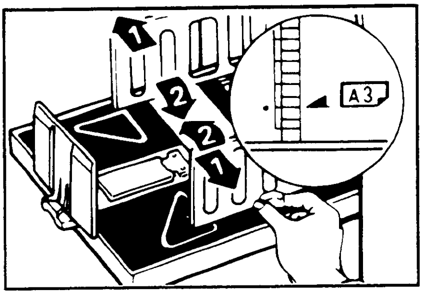


4 Push the small size paper delivery plate to the left, then lower it, if necessary.

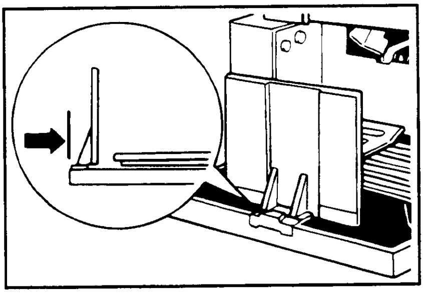


5 Move the side plates to the sides, then lower them.

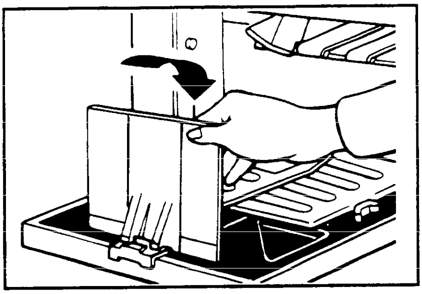
☐ Make sure that the side plates do not touch the small size paper delivery end plate.



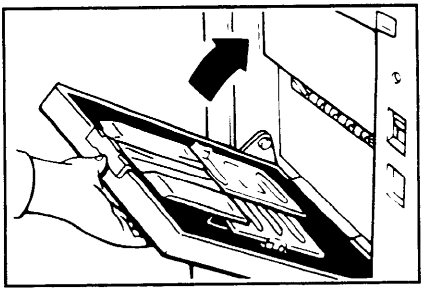
6 Move the end plate until the plate handle is flush with the end of the table.



7 Lower the end plate.

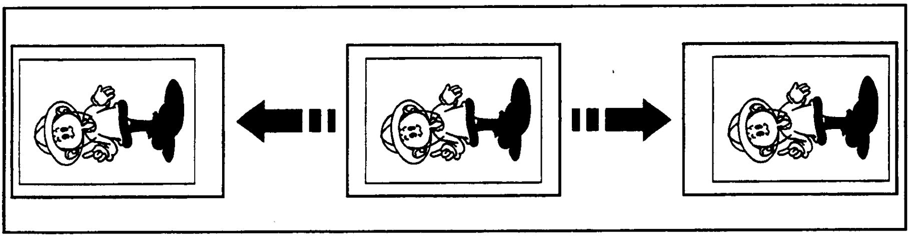


8 Close the table.

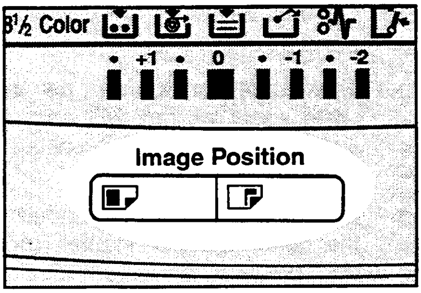


Adjusting The Image Position

Shifting the image position forward or backward

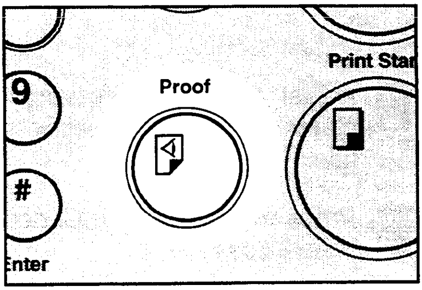


1. Press the right **Image Position** key to move the image forwards, the left key to move it backwards.



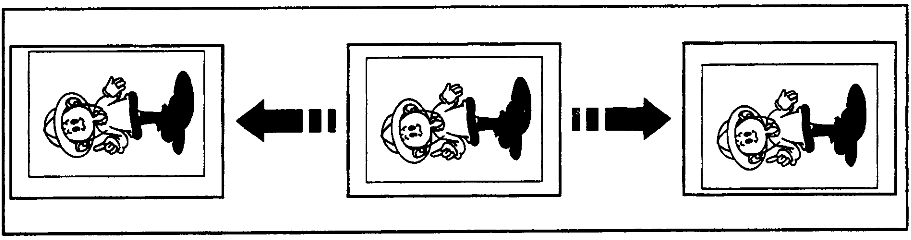
- ❑ When you shift the image forwards, leave a margin (more than 5 mm, 0.2") at the leading edge. If there is no margin, paper might wrap around the drum and cause a misfeed.
- ❑ The right or left **Image Position** keys shift the image about 0.5 mm, 1/50" each time they are pressed. When the indicator changes, the image position shifts about 5 mm, 1/5".

2. Press the **Proof** key. Check the image position again.



Shifting the image to the right or left

❐ If your machine is equipped with the optional large capacity tray, ☛ see page 106.

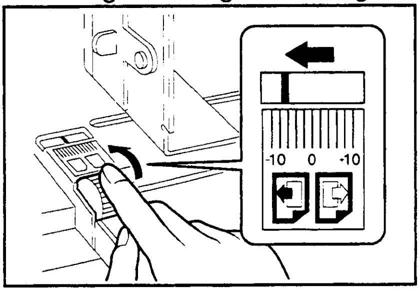


1. Turn the side plate fine adjusting dial as shown in the illustrations.

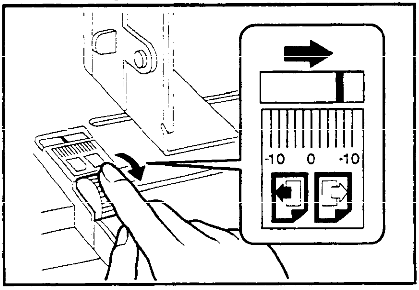
❐ The image position can be shifted up to about 10 mm, 2/5" each way. Each division on the scale is 2 mm, 0.08".

❐ If your machine is equipped with the optional sorter stapler, the image position is shifted to 3 mm, 0.12" for each division on the scale.

Shifting the image to the right

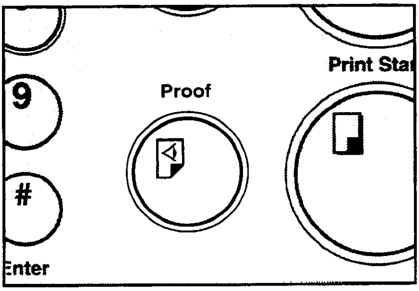


Shifting the image to the left



2. Adjust the paper delivery side plates to the print paper position.

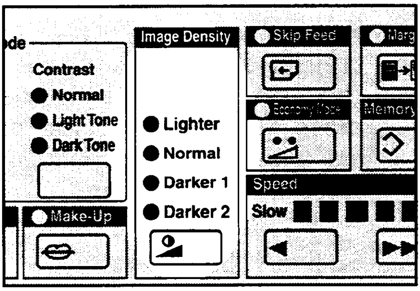
3. Press the **Proof** key. Check the image position.



Adjusting The Image Density

Before making a master

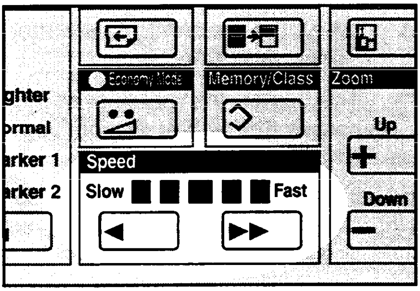
1 Use the **Image Density** key before pressing the **Master Making** key.


de
Contrast
● Normal
● Light Tone
● Dark Tone
Make-Up
Image Density
● Lighter
● Normal
● Darker 1
● Darker 2
Skip Feed
Economy Mode
Speed
Slow
Memory

After making a master

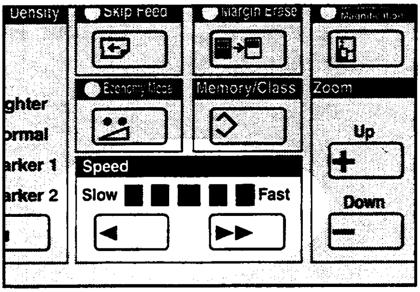
1 Press the **Speed** keys. To increase the speed, press the "▶▶" key. To reduce the speed, press the " ◀ " key.

- ❐ The faster the printing speed becomes, the lighter the printing density is. If you want darker prints, decrease the printing speed.
- ❐ If you use the Sort, Staple Sort, or Class Sort function, the setting should be Setting 1.


ghter
ormal
arker 1
arker 2
Economy Mode
Memory/Class
Zoom
Up
Down
Speed
Slow
Fast

Changing The Printing Speed

Use the **Speed** keys to adjust the speed of the machine with the image density and printing paper.


Density
Skip Feed
Margin Erase
Economy Mode
Memory/Class
Zoom
ghter
ormal
arker 1
arker 2
Speed
Slow
Fast
Up
Down

Press the **Speed** keys. To increase the speed, press the "▶▶" key. To reduce the speed, press the " ◀ " key. The printing speed will be changed as follows:

Setting 1: 60 sheets/minute
Setting 2: 75 sheets/minute
Setting 3: 90 sheets/minute
Setting 4: 105 sheets/minute
Setting 5: 120 sheets/minute

❑ When the main switch is turned on, Setting 3 is selected.

❑ The faster the printing speed becomes, the lighter the printing density is, and vice versa.

❑ If you use the Sort, Staple Sort, or Class Sort function, the setting should be Setting 1.

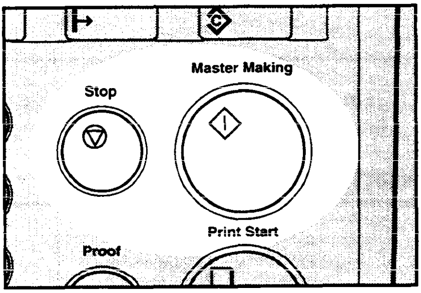
Stopping The Machine During A Print Run

When you want to stop the machine during a print run and print the next original

1. Press the **Stop** key.

2. Set the new original.

3. Enter the number of prints and press the **Master Making** key.


Master Making
Stop
Print Start
Proof

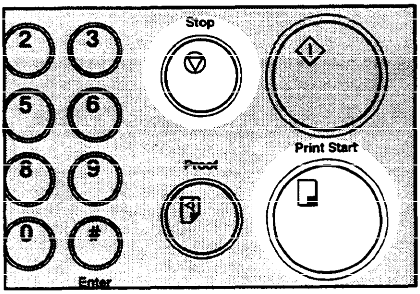
When you want to change the number of prints entered or check the completed prints

1. Press the **Stop** key.

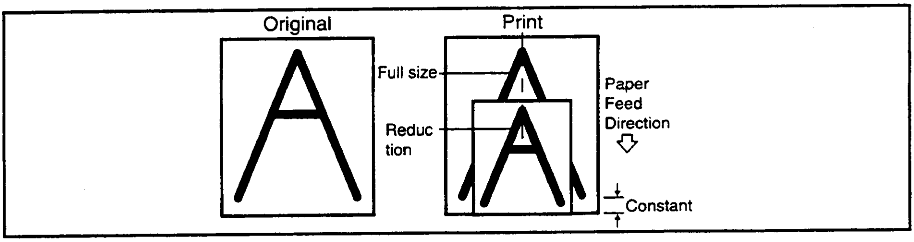
2. Change the number of prints or check the completed prints.

❐ When you change the number of prints, you can re-enter the number using the **Number** keys after pressing the **Stop** key.

3. Press the **Print Start** key.

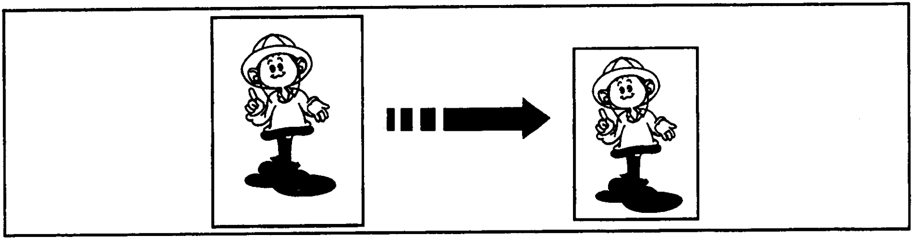

2
3
5
6
8
9
0
#
Enter
Stop
Proof
Print Start

Reduction/Enlargement Printing


Original
Print
Full size
Reduc tion
Paper Feed Direction
Constant

❑ The center and the leading edge of the print image do not shift when a print image is made with this function.

Reduction



Prints can be reduced in size by using the **Reduce/Enlarge** key.

— Metric version —

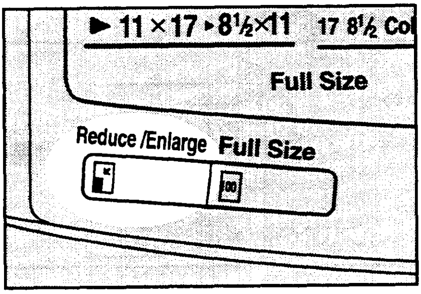
Reduction Ratio	Original Size	Print Size
93 %	*	
87 %	A3	B4
	A4	B5
82 %	B4	A4
	B5	A5
71 %	A3	A4
	A4	A5
	B4	B5

— Inch version —

Reduction Ratio	Original Size	Print Size
93 %	*	
77 %	81/2" x 14"	81/2" x 11"
74 %	11" x 15"	81/2" x 11"
65 %	11" x 17"	81/2" x 11"
	81/2" x 11"	51/2" x 81/2"

* Select this ratio when you make prints with a lot of edge margins.

1 Select the desired reduction ratio using the **Reduce/Enlarge** key.

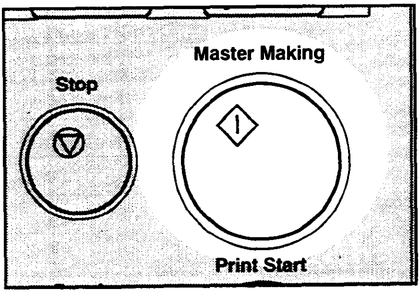

▶ 11×17 ▸8½×11
17 8½ Co
Full Size
Reduce /Enlarge
Full Size

2 Make sure that the original and the print paper are the correct size.

3 Set your original on the exposure glass or in the optional document feeder.

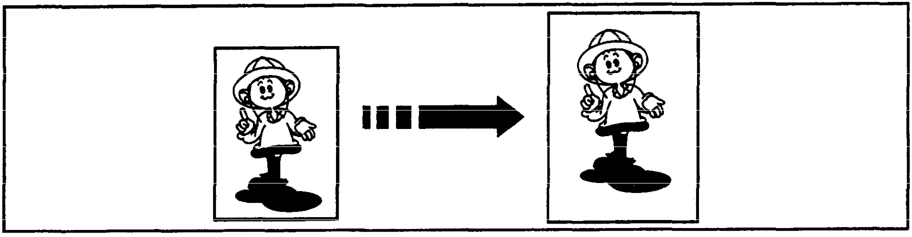
4 Press the **Master Making** key. Check the image position of the trial or proof print.

❒ If the image position is not correct, adjust it using the **Image Position** keys (☛ see page 21) or the side plate fine adjusting dial (☛ see page 22).


Master Making
Stop
Print Start

5 Make your prints.

Enlargement



Prints can be enlarged by using the **Reduce/Enlarge** key.

— Metric version —

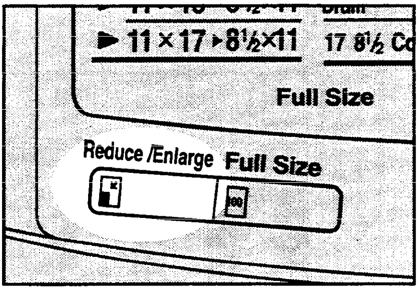
Enlargement Ratio	Original Size	Print Size
141 %	A4	A3*
	A5	A4
	B5	B4
	B6	B5
122 %	A4	B4
	A5	B5
115 %	B4	A3*
	B5	A4
	B6	A5

— Inch version —

Enlarge-ment Ratio	Original Size	Print Size
155 %	51/2" x 81/2"	81/2" x 14"
129 %	81/2" x 11"	11" x 17"
	51/2" x 81/2"	81/2" x 11"
121 %	81/2" x 14"	11" x 17"

* Some part of the image on the trailing edge might not appear. To print the entire image, adjust the enlargement ratio with the **Zoom up/down** keys.

1. Select the desired enlargement ratio using the **Reduce/Enlarge** key.

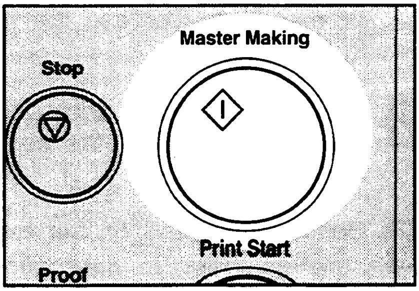

▶ 11 × 17 ▸ 8½×11
17 8½
Full Size
Reduce/Enlarge
Full Size

2. Make sure that the original and the print paper are the correct size.

3. Set your original on the exposure glass or in the optional document feeder.

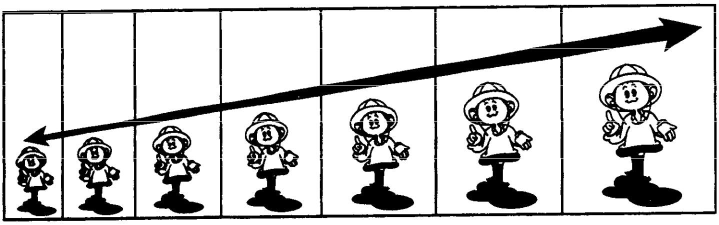
4. Press the **Master Making** key. Check the image position of the trial or proof print.

❑ If the image position is not correct, adjust it using the **Image Position** keys (☛ see page 21) or the side plate fine adjusting dial (☛ see page 22).


Master Making
Stop
Print Start
Proof

5. Make your prints.

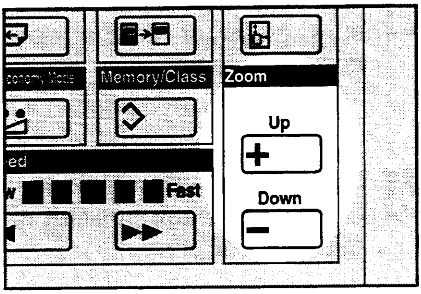
Zoom



In this mode, the reproduction ratio can be changed from 50 % to 200 % in 1 % steps.

1. Press the **Zoom down** (-) key repeatedly to reduce the ratio in 1 % steps.

   Or, press the **Zoom up** (+) key repeatedly to increase the ratio in 1 % steps.

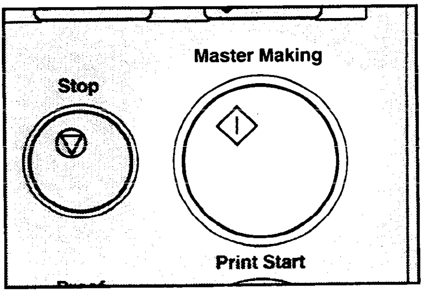


2. Make sure that the original and the print paper are the correct size.

3. Set your originals on the exposure glass or in the optional document feeder.

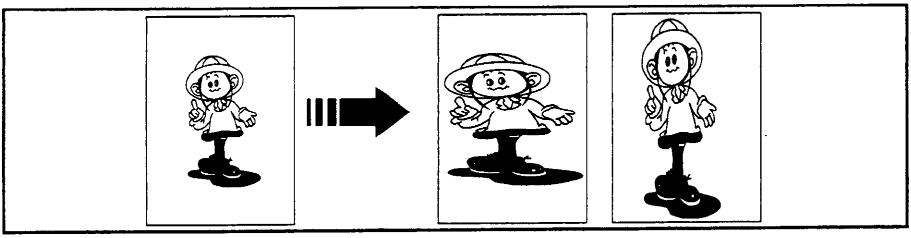
4. Press the **Master Making** key. Check the image position of the trial or proof print.

❐ If the image position is not correct, adjust it using the **Image Position** keys (☛ see page 21) or the side plate fine adjusting dial (☛ see page 22).



5. Make your prints.

Directional Magnification Printing

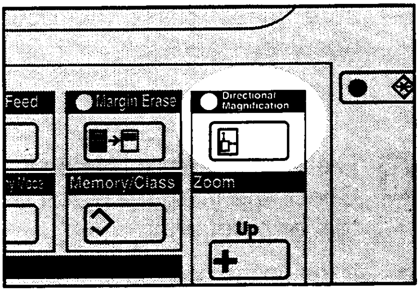


You can select independent ratios for vertical and horizontal directions.

❒ If you do not know the proper reproduction ratios, you can use SP mode to enter the size of the original and print paper (☛ See page 133). The machine will then select the proper reproduction ratios and you can make prints.

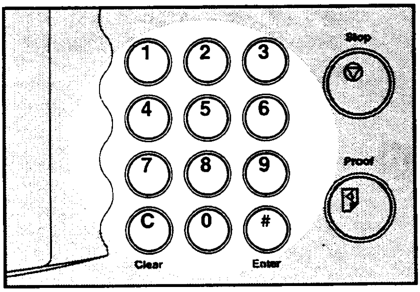
When you enter the reproduction ratios

1. Press the **Directional Magnification** key.

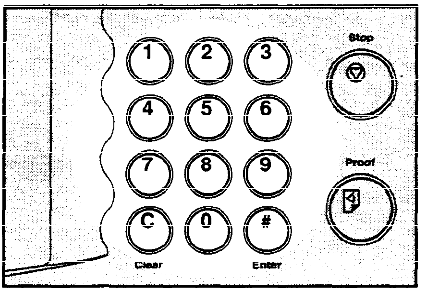

Feed
Margin Erase
Directional Magnification
Memory/Class
Zoom
Up

2. Enter the desired reproduction ratio for the vertical direction using the **Number** keys.

3. Press the **Enter** key.


1
2
3
4
5
6
7
8
9
C
0
#
Clear
Enter
Stop
Proof

4 Enter the desired reproduction ratio for the horizontal direction using the **Number** keys.


1
2
3
4
5
6
7
8
9
C
0
#
Stop
Proof
Clear
Enter

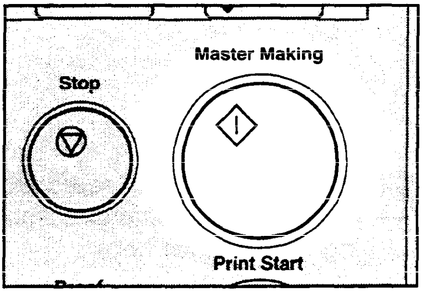
5 Press the **Enter** key.

6 Make sure that the original and the print paper are the correct size.

7 Set your original on the exposure glass or in the optional document feeder.

8 Press the **Master Making** key. Check the image position of the trial or proof print.

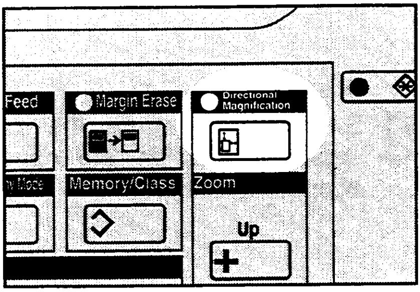
❒ If the image position is not correct, adjust it using the **Image Position** keys (☛ see page 21) or the side plate fine adjusting dial (☛ see page 22).


Master Making
Stop
Print Start

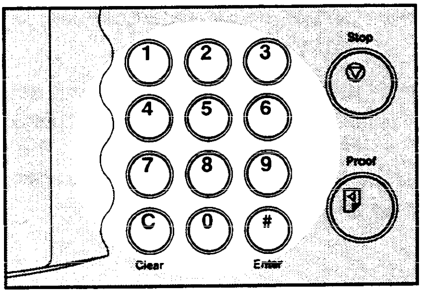
9 Make your prints.

Entering the lengths of the original and print paper

1. Press the **Directional Magnification** key.


Feed
Margin Erase
Directional Magnification
Memory/Class
Zoom
Up

2. Enter the vertical length of the original using the **Number** keys and press the **Enter** key.


1
2
3
4
5
6
7
8
9
C
0
#
Clear
Enter
Stop
Proof

3. Enter the horizontal length of the original using the **Number** keys and press the **Enter** key.

4. Enter the vertical length of the print paper using the **Number** keys and press the **Enter** key.

5. Enter the horizontal length of the print paper using the **Number** keys and press the **Enter** key.

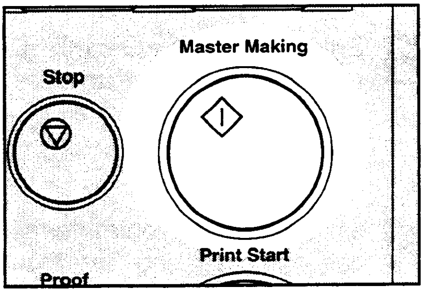
❐ The machine will select proper reproduction ratios for vertical and horizontal directions.

6 Make sure that the original and the print paper are the correct size.

7 Set your original on the exposure glass or in the optional document feeder.

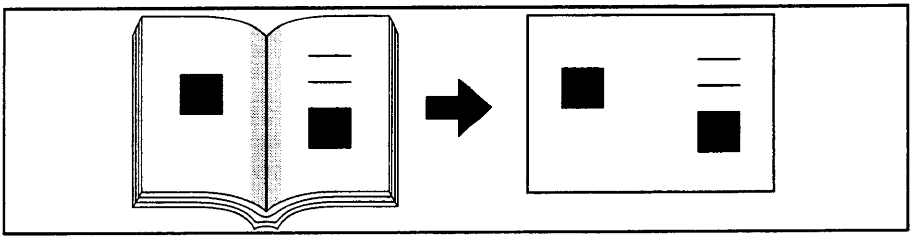
8 Press the **Master Making** key. Check the image position of the trial or proof print.

❐ If the image position is not correct, adjust it using the **Image Position** keys (☛ see page 21) or the side plate fine adjusting dial (☛ see page 22).



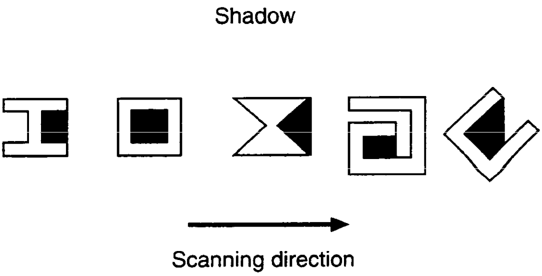
9 Make your prints.

Erasing Center And Edge Margins

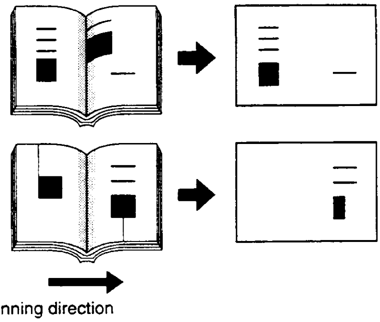


When printing from thick books, or similar originals, the binding margin at the center and the edges might appear on prints. To prevent this, follow the steps on the next page.

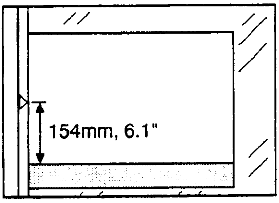
- The 1 mm, 0.02" margins on all four sides of the original will be erased. The width of the margins will change depending on the reduction ratios.
- Shadows near the book edge might not be erased completely.
- If the shapes of the originals are as below, shadows might appear on the prints. In this case, make a master with the platen cover closed.



- If there is a line or solid image on the margin and you erase the center and the edges, the image might be erased as shown below. In this case, use the function described on page 38.

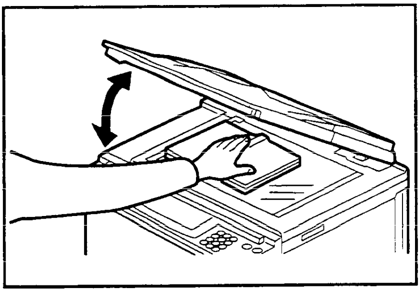


- ❐ If you do not press hard on the book while it is scanned, the margin at the center might not be erased completely.
- ❐ If the machine is installed under a strong light, such as a fluorescent light, a shadow might appear on the prints. In this case, close the platen cover a little to block the light or move the machine.
- ❐ If you set the original on the exposure glass as shown below, the screened image below may not be printed. Lines or solid images that run from the screened image below onto the original may also not be printed.

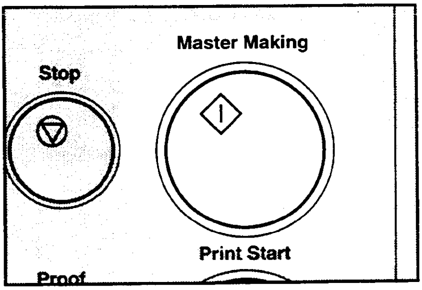


1 Set the book on the exposure glass.

2 Keep the platen cover at an angle of at least 25 degrees with the exposure glass.

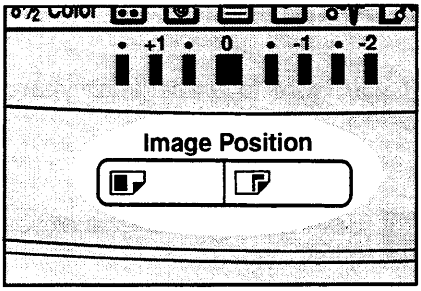


3 Press the **Master Making** key. Press hard on the book with your hand while it is scanned.



4 Check the image position of the trial or proof print.

❐ If the image position is not correct, adjust it using the **Image Position** keys (☛ see page 21) or the side plate fine adjusting dial (☛ see page 22).

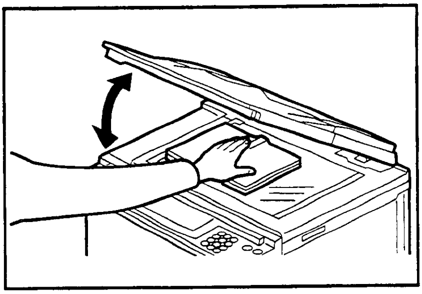


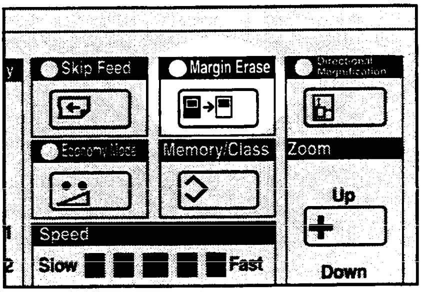
5 Make your prints.

Erasing Margins

If you want to erase edge margins of a book original, follow the steps below.

1. Set the original on the exposure glass.




Skip Feed
Margin Erase
Directional Magnification
Economy Mode
Memory/Class
Zoom
Up
Speed
Slow
Fast
Down

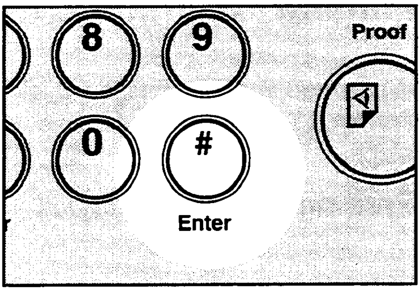
2. Enter the number of prints required using the **Number** keys.

3. Press the **Margin Erase** key.

4. The following message will appear on the guidance display. The paper size and direction will be changed by pressing the **Zoom up/down** keys.

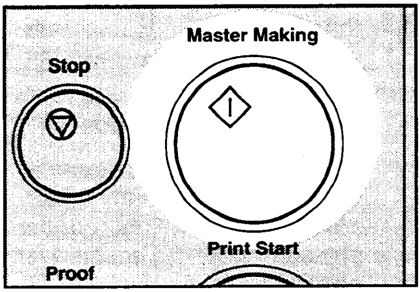
```
SCROLL BY ZOOM KEY
          (YYY x XXX MM)
```

5 When you reach the desired paper size and direction, press the **Enter** key.


8
9
0
#
Enter
Proof

6 Press the **Master Making** key. Check the image position of the trial or proof print.

❐ If the image position is not correct, adjust it using the **Image Position** keys (☛ see page 21) or the side plate fine adjusting dial (☛ see page 22).


Master Making
Stop
Print Start
Proof

7 Make your prints.

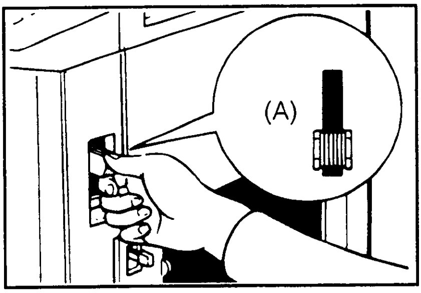
Printing On Thick Or Thin Paper

When you make prints on thick (127.9 to 209.3 g/m^2, 34 to 55.6 lb) or thin (47.1 to 81.4 g/m^2, 12.5 to 21.6 lb) paper, perform the following steps.

Printing on thick paper

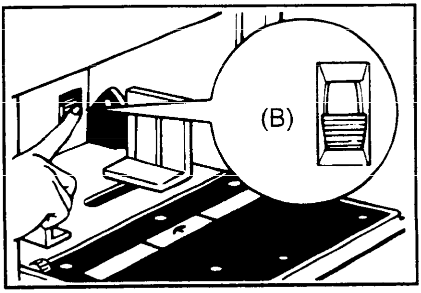
1 When you use paper heavier than 127.9 g/m^2, 34.0 lb and lighter than 209.3 g/m^2, 55.6 lb, position the pressure lever (A) to the Thick paper position.

- ☐ When you use paper heavier than 64 g/m^2, 17 lb and lighter than 157.0 g/m^2, 41.7 lb, position the pressure lever (A) to the standard position.
- ☐ In the case of paper smaller than B5, 51/2" x 81/2" and heavier than 81.4 g/m^2 (21.6 lb), move the feed roller pressure lever to the Thin paper position.



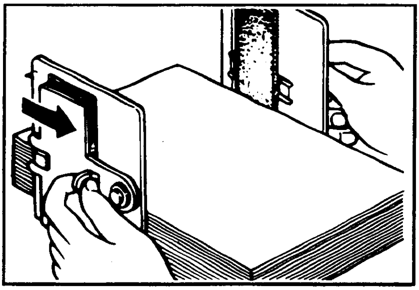
2 Push the pressure levers (B) down.

- ☐ There are two pressure levers (B). Make sure that both levers are down.
- ☐ If dog-eared or wrinkled prints are delivered, push the levers up.

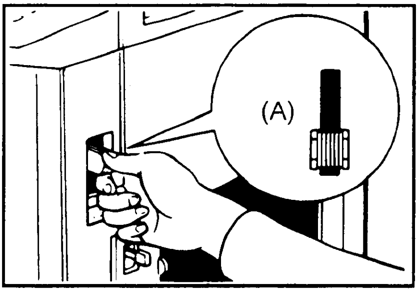


Printing on thin paper

1 Set the side pads (move the side pad levers to as shown opposite).



2 Position the pressure lever (A) to the Thin paper position.



3 Push the pressure levers (B) down.

- ❐ If dog-eared or wrinkled prints are delivered, push the levers up.
- ❐ There are two pressure levers (B). Make sure that both levers are down.

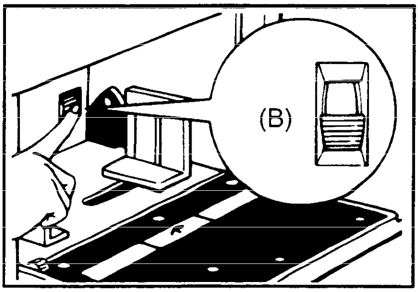
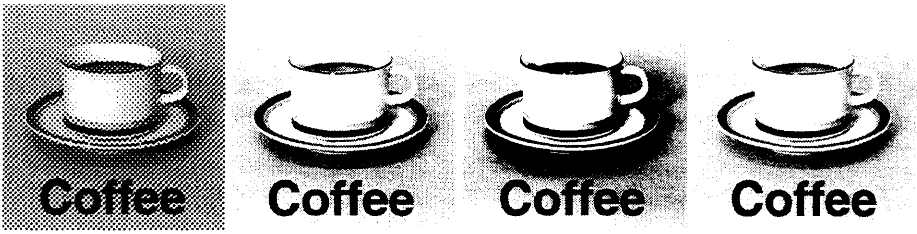


Photo Mode Printing

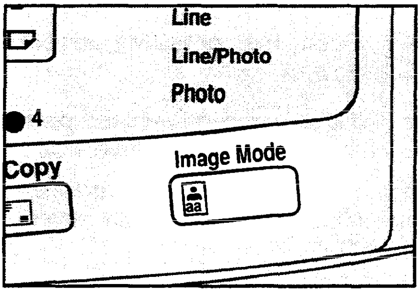

Coffee
Coffee
Coffee
Coffee

Original　Photo mode　Line mode　Line/Photo mode

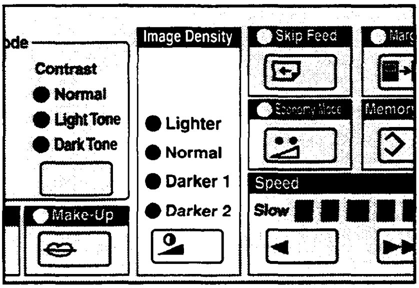
When printing a photograph or a color original, select Photo mode.

- ❐ Moire patterns may occur when screened originals are printed.
- ❐ When using Photo mode to print originals with both text and photographs, the text will appear lighter. To avoid this, select Line/Photo mode with the **Image Mode** key. Alternatively, use the optional Make-up function to specify Line mode for text areas and Photo mode for photograph areas.

1 Press the **Image Mode** key to select Photo mode.

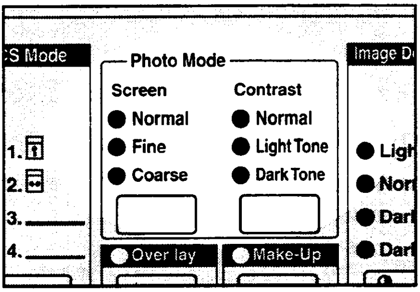

Line
Line/Photo
Photo
4
Image Mode

2 Press the **Image Density** key to adjust the image density.


Contrast
● Normal
● Light Tone
● Dark Tone
Make-Up
Image Density
● Lighter
● Normal
● Darker 1
● Darker 2
Skip Feed
Speed
Slow

3 If necessary, adjust the screen image by pressing the **Screen** key in Photo or Line/Photo mode.

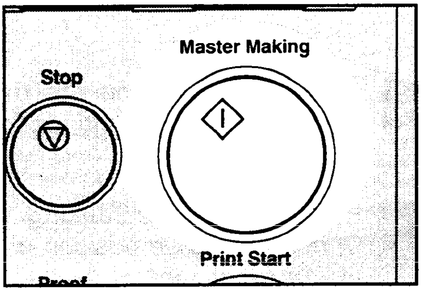
If necessary, adjust the contrast by pressing the **Contrast** key in Photo mode.


S Mode
Photo Mode
Screen
Contrast
● Normal
● Fine
● Coarse
● Normal
● Light Tone
● Dark Tone
1.
2.
3.
4.
Over lay
Make-Up
Image D
● Ligh
● Nor
● Dar
● Dar

4 Set your original on the exposure glass or in the optional document feeder.

5 Press the **Master Making** key. Check the image position of the trial or proof print.

❐ If the image position is not correct, adjust it using the **Image Position** keys (☛ see page 21) or the side plate fine adjusting dial (☛ see page 22).


Master Making
Stop
Print Start
Proof

6 Make your prints.

Ink Saving (Economy Mode)

When you want to save ink, select Economy mode.

❒ The printing density may be light in this mode.

❒ When you set Tint mode and press the **Economy Start** key, Tint mode is canceled.

1 Press the **Economy Mode** key.

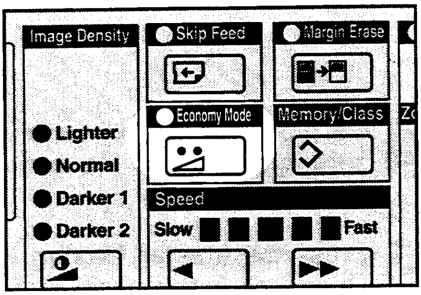
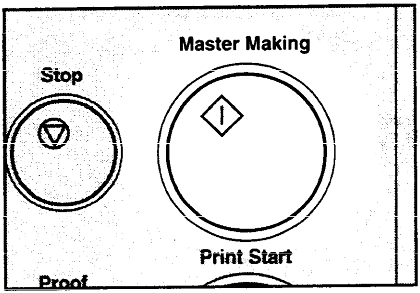


Image Density
Skip Feed
Margin Erase
Economy Mode
Memory/Class
Lighter
Normal
Darker 1
Darker 2
Speed
Slow
Fast

2 Set your original on the exposure glass or in the optional document feeder.

3 Press the **Master Making** key. Check the image position of the trial or proof print.

❒ If the image position is not correct, adjust it using the **Image Position** keys (☛ see page 21) or the side plate fine adjusting dial (☛ see page 22).


Master Making
Stop
Print Start
Proof

4 Make your prints.

Printing From Several Originals At Once

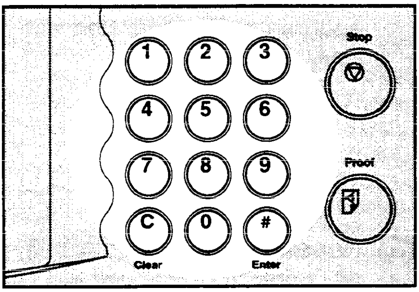
Use the **Auto Cycle** key to process masters and make prints at one stroke.

- ❒ When you use the optional document feeder, it is not necessary to place originals one by one. All originals are fed and prints are completed after you press the **Print Start** key.
- ❒ If you use the optional tape dispenser, the tape dispenser drops a strip of paper onto the top of the paper stack after the last page of each printing set is fed out to the paper delivery table. This marks the end of each printing group.

1 Set the original face down on the exposure glass or in the optional document feeder.

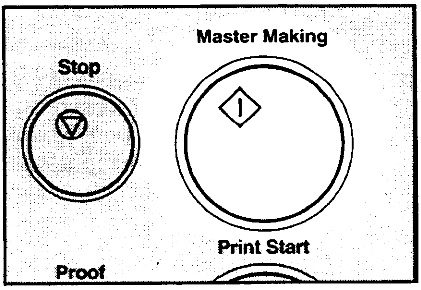
- ❒ You can set up to 20 originals into the optional 20 originals document feeder.
- ❒ You can set up to 50 originals into the optional 50 originals document feeder.

2 Enter the number of prints required using the **Number** keys.



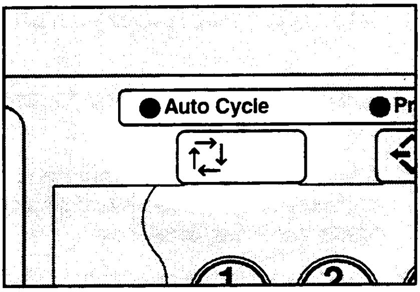
3 Press the **Master Making** key. Check the image position of the trial or proof print.

- ❒ If the image position is not correct, adjust it using the **Image Position** keys (☛ see page 21) or the side plate fine adjusting dial (☛ see page 22).

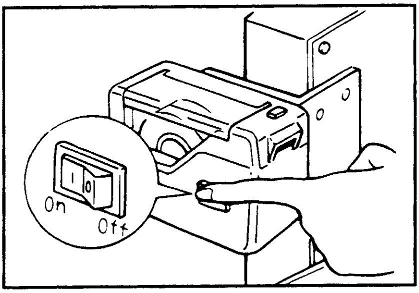


4 Press the **Auto Cycle** key.

❒ If you press the **Auto Cycle** key, you cannot make proof prints by pressing the **Proof** key.

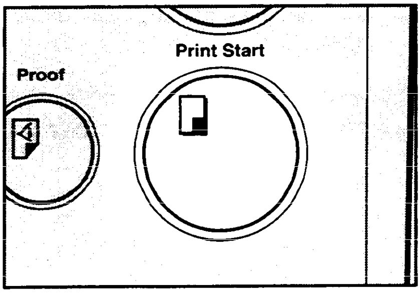


5 If you use the optional tape dispenser, turn on the power switch of the tape dispenser.



6 Press the **Print Start** key.

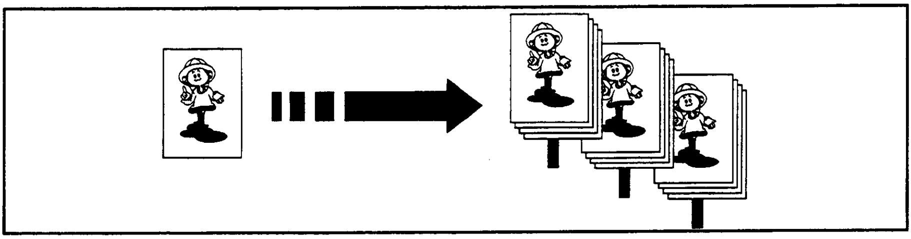
❒ If you set originals into the optional document feeder, originals are fed and prints are completed automatically.



7 Repeat steps 1 through 3 until all originals are printed when you set originals on the exposure glass.

❒ After the last page of each set is fed out to the paper delivery table, the optional tape dispenser drops a strip of paper on the top of the paper stack. The next cycle begins.

Group Printing From The Same Original (Class Mode)

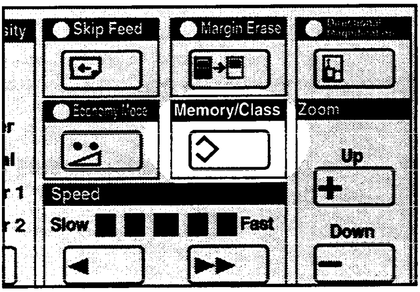


Use the **Memory/Class** key to make sets of prints from the same original. The same number of prints is made for each set.

❒ The optional tape dispenser automatically feeds out strips of paper which separate the printing groups on the paper delivery table.

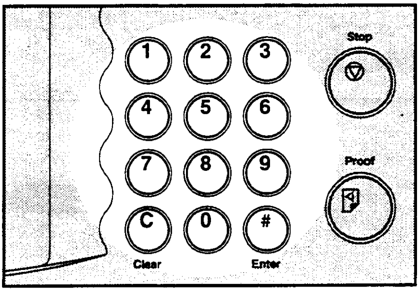
❒ Up to 99 sets of prints can be selected for one original.

1. Press the **Memory/Class** key to light the Class indicator.

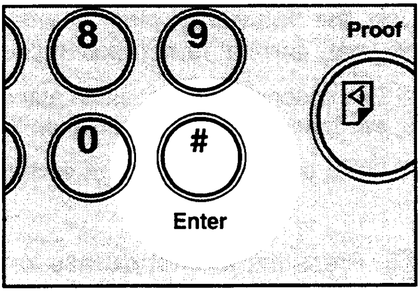

Skip Feed
Margin Erase
Economy Mode
Memory/Class
Zoom
Up
Down
Speed
Slow
Fast

2. Set the original face down on the exposure glass or in the optional document feeder.

3 With the **Number** keys, enter the number of prints for each set to be made from the original.

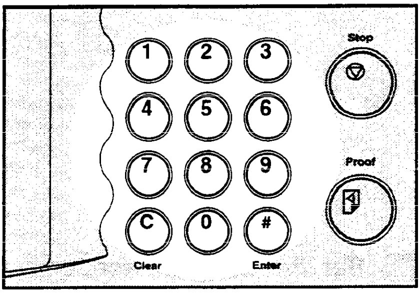

1
2
3
4
5
6
7
8
9
C
0
#
Clear
Enter
Stop
Proof

4 Press the **Enter** key.

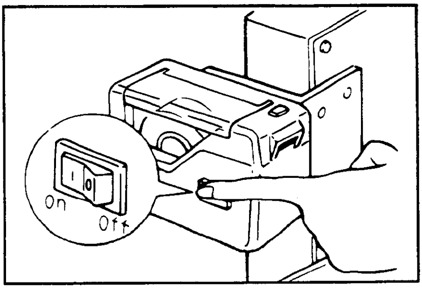

8
9
0
#
Enter
Proof

5 With the **Number** keys, enter the desired number of sets.

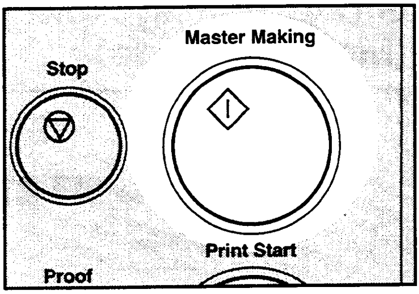
- ❑ The maximum number of sets that can be made is 99.


1
2
3
4
5
6
7
8
9
C
0
#
Clear
Enter
Stop
Proof

6 Turn on the power switch of the optional tape dispenser.

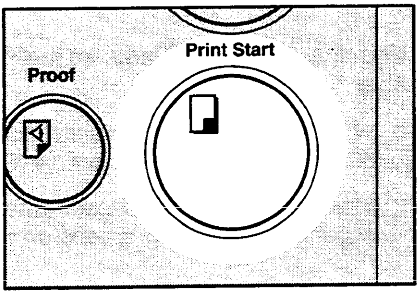


7 Press the **Master Making** key. Check the image position of the trial or proof print.



❐ If the image position is not correct, adjust it using the **Image Position** keys (☛ See page 21) or the side plate fine adjusting dial (☛ See page 22).

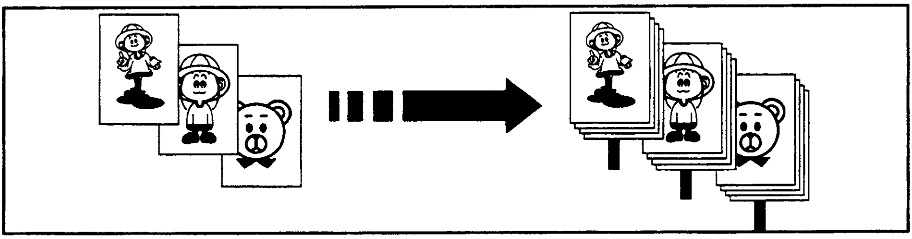
8 Make your prints.



❐ After the last page of each printing set is fed out to the paper delivery table, the tape dispenser drops a strip of paper on the top of the paper stack.

❐ If the power switch of the optional tape dispenser is turned off or the tape dispenser is not installed in your machine, the group printing cycle stops after each set is delivered. Remove the set of prints from the paper delivery table and press the **Print Start** key to start the next group printing cycle.

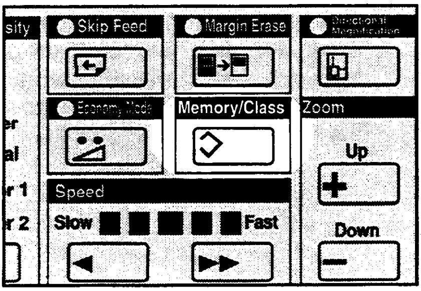
Group Printing From Different Originals (Memory Mode)



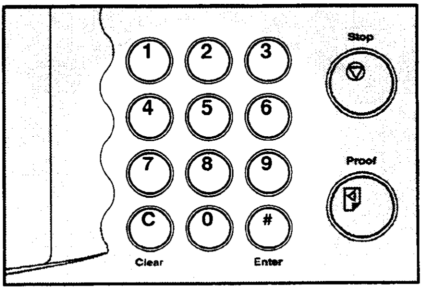
Use the **Memory/Class** key to make sets of prints from different originals.

- ❒ With the optional document feeder, you can set several originals and make prints of all of them at once. ☛ See page 75.
- ❒ The optional tape dispenser automatically feeds out strips of paper which separate the printing groups on the paper delivery table.

1 Press the **Memory/Class** key to light the Memory indicator.

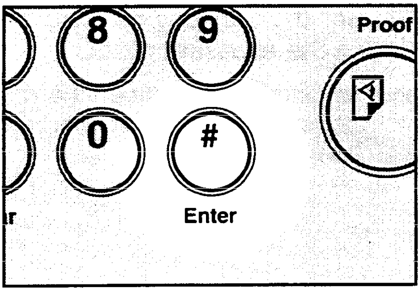

Skip Feed
Margin Erase
Directional Magnification
Economy Mode
Memory/Class
Zoom
Up
Speed
Slow
Fast
Down

2 With the **Number** keys, enter the desired number of prints for the first original.


1
2
3
4
5
6
7
8
9
C
0
#
Clear
Enter
Stop
Proof

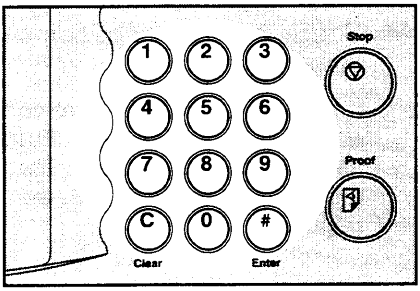
3 Press the **Enter** key. This stores the number of prints to be made for the first original in memory 1.

❒ When the number of prints in each set is the same, it is not necessary to input the number of prints for each group in memory. Simply select Auto Cycle mode and enter the desired number of prints once.



4 With the **Number** keys, enter the number of prints for the second original.

5 Press the **Enter** key. This stores the number of prints to be made for the second original in memory 2.

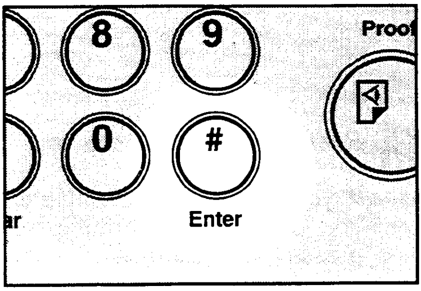


6 Repeat steps 4 and 5 for each original.

❒ The number of prints for up to 25 originals can be stored.

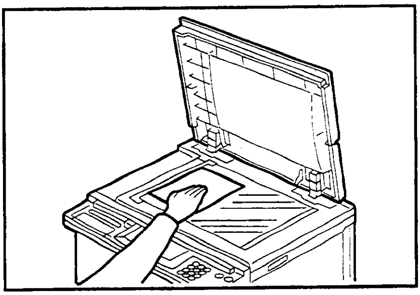
7 Press the **Enter** key again. The memory returns to memory 1.

❒ If you store the number of prints for 25 originals, the memory number returns to 1. It is not necessary to press the **Enter** key.



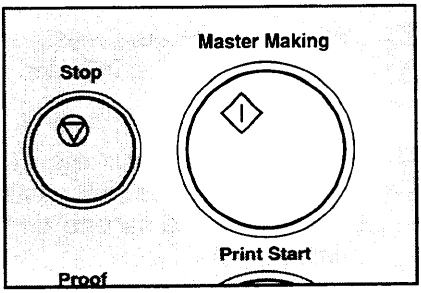
8 Set the first original face down on the exposure glass.

❐ Set originals one sheet at a time in the same order that you stored them in memory.

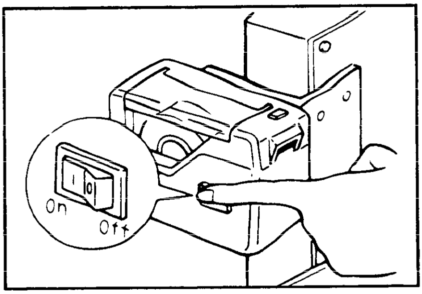


9 Press the **Master Making** key. Check the image position of the trial or proof print.

❐ If the image position is not correct, adjust it using the **Image Position** keys (☛ see page 21) or the side plate fine adjusting dial (☛ see page 22).

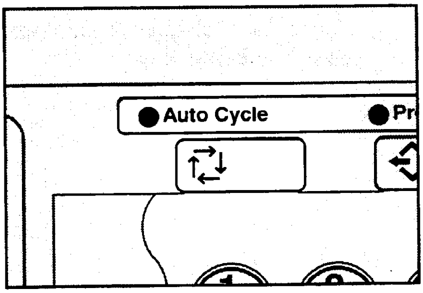


10 Turn on the power switch of the optional tape dispenser.



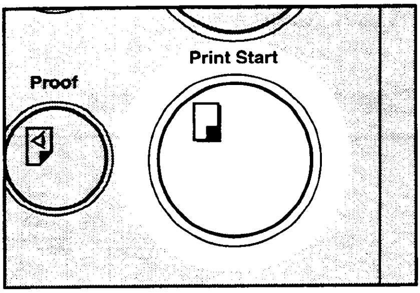
11 Press the **Auto Cycle** key.

❐ If you press the **Auto Cycle** key, you cannot make proof prints by pressing the **Proof** key.

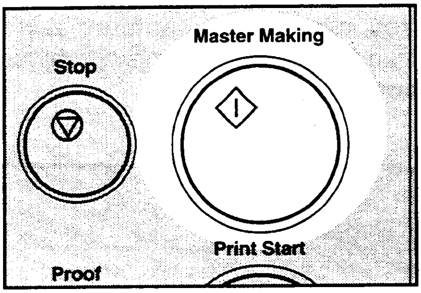


12 Press the **Print Start** key.

- After the first set is fed to the paper delivery table, the optional tape dispenser drops a strip of paper on the top of the paper stack.


Print Start
Proof

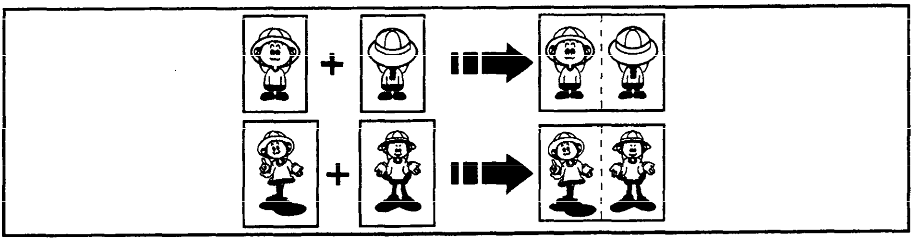
13 After the first set is completed, set the second original on the exposure glass and press the **Master Making** key.


Master Making
Stop
Print Start
Proof

14 Repeat step 13 until you have finished printing.

Multi Copy

Combine 2 originals



You can print 2 separate originals on a single sheet of paper. The following tables list the combinations that can be used when combining two originals.

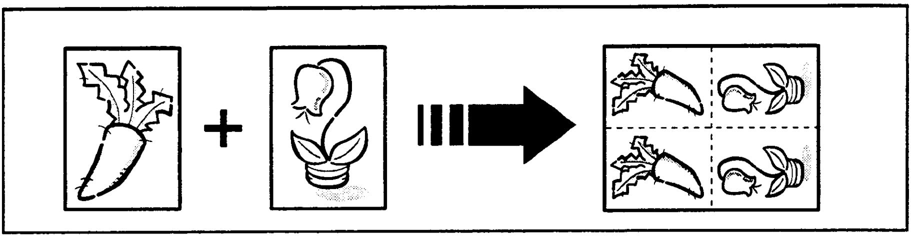
— Metric version —

Original Size Paper Size	A4 ▯	B5 ▯	A5 ▯	B6 ▯	A6 ▯
A3 ▭	100%	115%	141%	163%	200%
B4 ▭	87%	100%	122%	141%	173%
A4 ▭	71%	82%	100%	115%	141%
B5 ▭	61%	71%	87%	100%	122%
A5 ▭	50%	57%	71%	82%	100%

— Inch version —

Original Size Paper Size	8½" x 11" ▯	5½" x 8½" ▯
11" x 17" ▭	100%	129%
8½" x 14" ▭	77%	100%
8½" x 11" ▭	65%	100%
5½" x 8½" ▭	50%	65%

Combined print



You can print 4 original images on a single sheet of paper using 2 originals. The images are positioned on the print as shown above. The following tables list the combinations that can be used when combining originals.

— Metric version —

Original Size / Paper Size	A3 ▭	B4 ▭	A4 ▭	B5 ▭	A5 ▭	B6 ▭	A6 ▭
A3 ▭	50%	58%	71%	82%	100%	115%	141%
B4 ▭	—	50%	61%	71%	87%	100%	122%
A4 ▭	—	—	50%	58%	71%	82%	100%
B5 ▭	—	—	—	50%	61%	71%	87%
A5 ▭	—	—	—	—	50%	58%	70%

— Inch version —

Original Size / Paper Size	11" x 17" ▭	8½" x 14" ▭	8½" x 11" ▭	5½" x 8½" ▭
11" x 17" ▭	50%	65%	65%	100%
8½" x 14" ▭	—	50%	50%	77%
8½" x 11" ▭	—	—	50%	77%
5½" x 8½" ▭	—	—	—	50%

Notes for multi copy mode

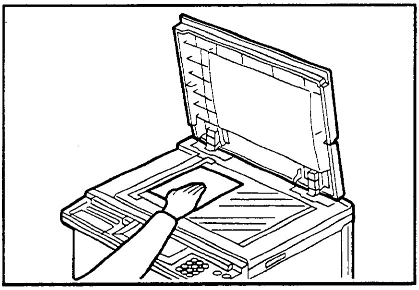
- If originals are longer than the maximum length for combined prints, images do not completely appear on prints. The following table gives the maximum combined original length for each print paper size.

Print paper size	Maximum original length for combining prints
A3	210 mm
B4	182 mm
A4 ▭	148 mm
B5 ▭	128 mm
A5 ▭	105 mm
11" x 17"	216 mm, 8.5"
8½" x 14"	178 mm, 7.0"
8½" x 11" ▭	140 mm, 5.5"
5½" x 8½" ▭	108 mm, 4.3"

Maximum original length = actual original length x magnification ratio

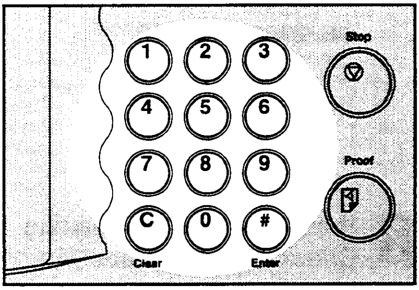
- Any image closer than 5 mm, 0.2" to the leading edge of the first original will not be printed. Also, any image closer than 4 mm, 0.16" to the leading edge of the second original will not be printed. When the image is too close to the leading edge, use copies of the originals with the image shifted at least 5 mm, 0.2" for the first original (4 mm, 0.16" for the second original) from the leading edge.
- You can select different kinds of image settings for the first and second original.
- When you use the optional document feeder with this function, ☛ see page 73.
- Make sure that the paper feed side plates contact the paper lightly when you use Multi Copy. Otherwise, the two original images will not appear at the proper position on the prints.

How to make prints in multi copy mode



1 Set the first original face down and with the top toward the operating side.

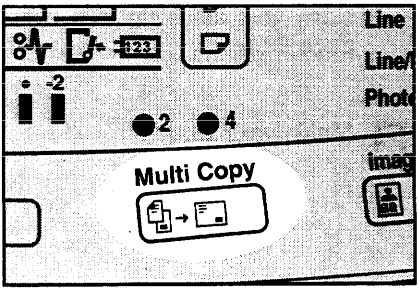
❒ The first original will be printed on the leading part of the print.



1
2
3
4
5
6
7
8
9
C
0
#
Stop
Proof
Clear
Enter

2 Enter the number of prints using the **Number** keys.

3 Check the print paper size and the reproduction ratio.

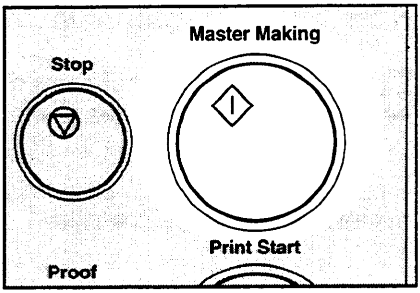


Multi Copy
2
4
Line

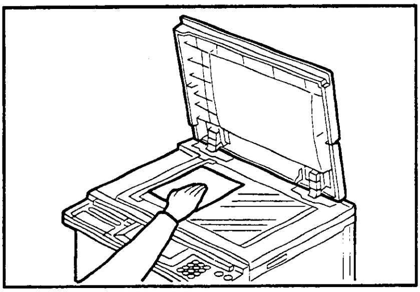
4 Then press the **Multi Copy** key either:

Once to select the Combine 2 Originals function.
or
Twice to select the Combined Print function.

5 Press the **Master Making** key.

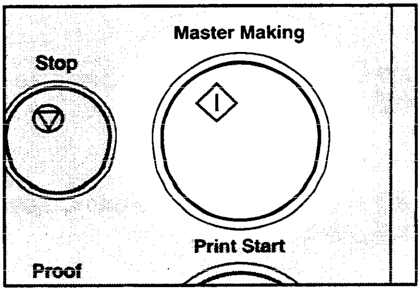

Master Making
Stop
Print Start
Proof

6 The beeper sounds after the first original is on the master. Set the second original face down and with the top toward the operating side.



7 Press the **Master Making** key. Check the image position of the trial or proof print.

- ☐ If the image position is not correct, adjust it using the **Image Position** keys (☛ See page 21) or the side plate fine adjusting dial. (☛ See page 22.)


Master Making
Stop
Print Start
Proof

8 Make your prints.

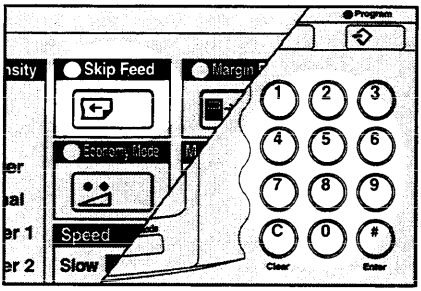
Skip Feed Printing (Skip Feed Mode)

If the backs of prints are dirty, you can increase the time between two prints using the **Skip Feed** key. In the default setting, when one sheet of paper is fed the drum rotates once. However, you can select the number of rotations of the drum. This gives you the chance to remove prints one by one from the paper delivery table or insert one sheet of paper between two prints. If you use this function, you can also use paper longer than 447 mm, 17.5" in spite of the maximum length limitations of paper.

- ❐ The maximum length of paper in Skip Feed mode is 590 mm, 23.2".
- ❐ When you use paper longer than 447 mm, 17.5", completed prints will not be delivered to the paper delivery table properly, so receive them by hand.

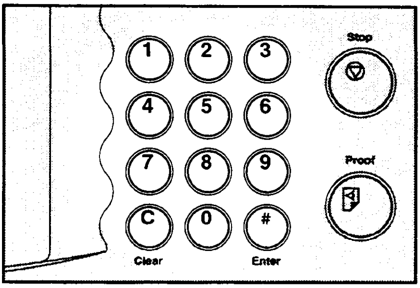
1 Set your original on the exposure glass or in the optional document feeder.

2 While pressing the **Skip Feed** key, select the number of rotations of the drum while one sheet of paper is fed, using the **Number** key.


Program
nsity
Skip Feed
Margin
Economy Mode
er
al
r 1
r 2
Speed
Slow
1
2
3
4
5
6
7
8
9
C
0
#
Clear
Enter

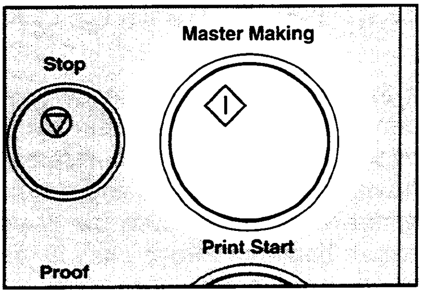
- ❐ You can select from 1 to 9 rotations.
- ❐ The beeper sounds after you set the number of rotations.

3 Release the **Skip Feed** key and enter the number of prints using the **Number** keys.


1
2
3
4
5
6
7
8
9
C
0
#
Clear
Enter
Stop
Proof

4 Press the **Master Making** key. Check the image position of the trial or proof print.

❏ If the image position is not correct, adjust it using the **Image Position** keys (☛ see page 21) or the side plate fine adjusting dial (☛ see page 22).


Master Making
Stop
Print Start
Proof

5 Make your prints.

User Programs

This User Program function allows you to store and recall up to 8 frequently used job setups.

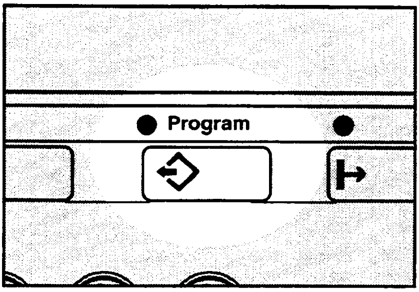
❐ The stored programs are not cleared when you turn off the main switch.

How to input a user program

1 Select and enter the job settings you want to store in memory.

2 Press the **Program** key.

❐ Numbers already containing a program are displayed on the guidance display.



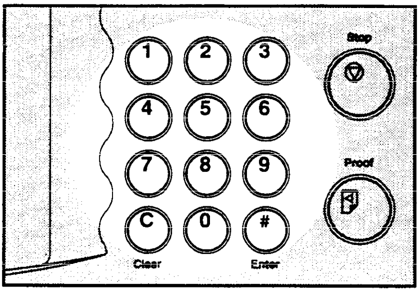
3 Enter "0" using the **Number** key.

4 Press the **Enter** key.

❐ The program numbers (1 to 8) will be displayed in the guidance display.

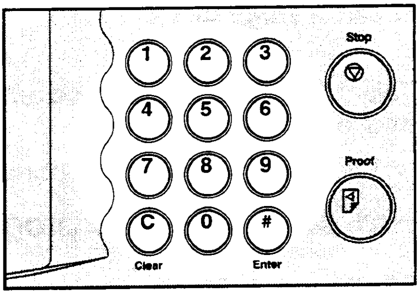
❐ If a user program has been protected, that program number will not appear in the display. For changing a protected user program, ☛ see page 65.

❐ If all the user programs have been protected, the machine returns to the ready condition.



5 Enter one of the program numbers displayed on the guidance display using the **Number** keys.

- ❑ Make sure that the previous job settings stored under the selected program number are overwritten.

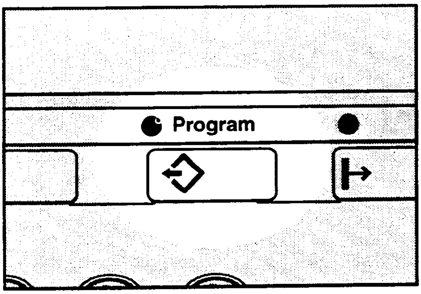

1
2
3
4
5
6
7
8
9
C
0
#
Clear
Enter
Stop
Proof

6 Press the **Enter** key.

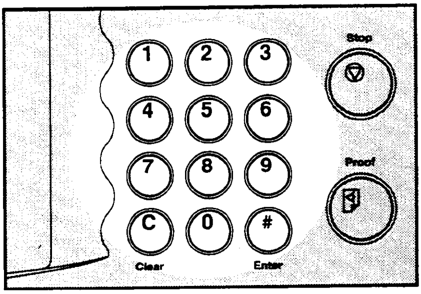
How to access a user program

1 Press the **Program** key.

- ❐ Numbers already containing a program are displayed on the guidance display.

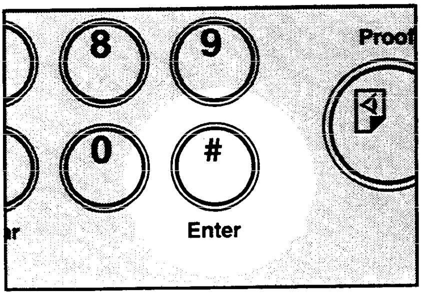


2 Using the **Number** keys, enter the number of the program that you want to access.


1
2
3
4
5
6
7
8
9
C
0
#
Clear
Enter
Stop
Proof

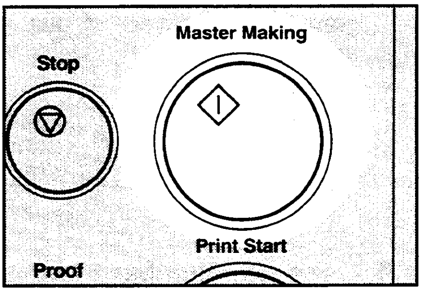
3 Press the **Enter** key.

- ❐ All stored job settings are recalled.


8
9
0
#
Enter
Proof

4 Set your originals on the exposure glass or in the optional document feeder.

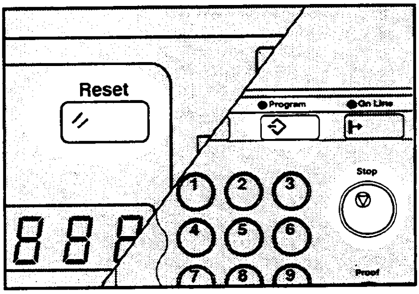
5 Press the **Master Making** key.


Master Making
Stop
Print Start
Proof

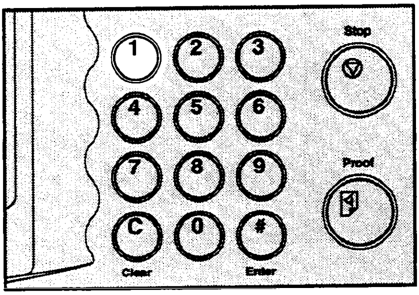
How to protect a program

If you want to prevent someone from writing over your program, do the following procedure.

1. While pressing the **Reset** key and **Stop** key simultaneously, press the **Program** key.

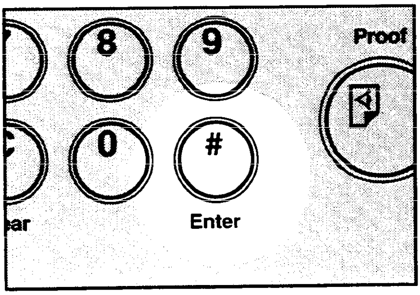

Reset
Program
On Line
Stop
1
2
3
4
5
6
7
8
9
Proof
888

2. Enter "1" using the **Number** key.


Stop
1
2
3
4
5
6
7
8
9
Proof
C
0
#
Clear
Enter

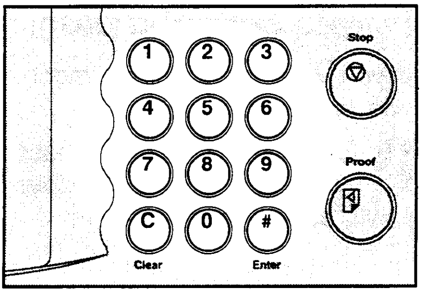
3. Press the **Enter** key.

   ❒ The numbers of the programs which are not protected will be displayed in the guidance display.


8
9
Proof
0
#
ar
Enter

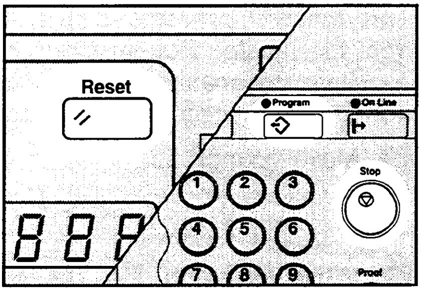
4 Using the **Number** keys, enter the number of the program that you wish to protect.

5 Press the **Enter** key.

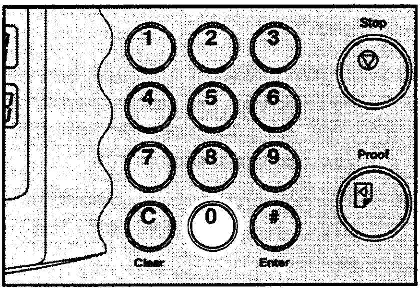

1
2
3
Stop
4
5
6
7
8
9
Proof
C
0
#
Clear
Enter

How to remove user program protection

1. While pressing the **Reset** key and **Stop** key simultaneously, press the **Program** key.

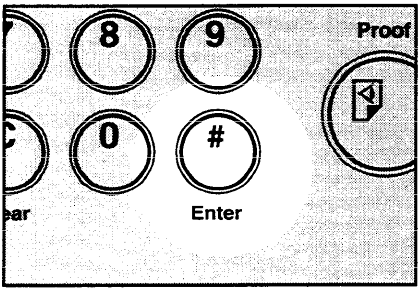

Reset
Program
On Line
Stop
Proof
1
2
3
4
5
6
7
8
9

2. Enter "0" using the **Number** key.


Stop
Proof
1
2
3
4
5
6
7
8
9
C
0
#
Clear
Enter

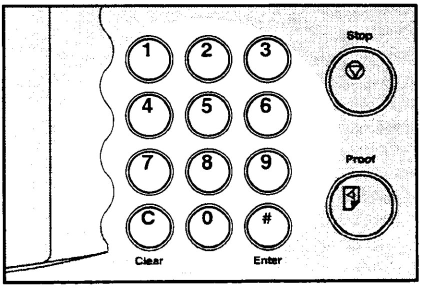
3. Press the **Enter** key.

   ❐ If no program number is protected, the machine returns to the ready condition.


8
9
Proof
0
#
Enter

4. Using the **Number** keys, enter the number of the program that you wish to remove protection from.

5. Press the **Enter** key.

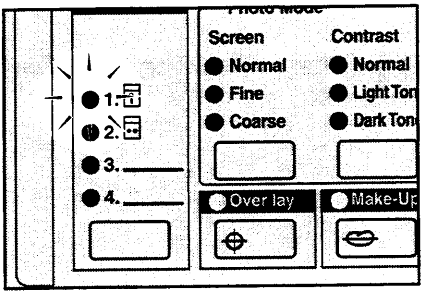

Stop
Proof
1
2
3
4
5
6
7
8
9
C
0
#
Clear
Enter

Printing Of Secret Documents (Security Mode)

This function prevents others from making prints of secret documents from the master. For example, if you want to print some documents with sensitive information, use this function after making your prints so that nobody can access that aster again.

1. Make your prints.

2. While pressing the **CS Mode** key, press "1" using the **Number** key.


Screen
Contrast
Normal
Fine
Coarse
Normal
Light Ton
Dark Ton
1.
2.
3.
4.
Over lay
Make-Up

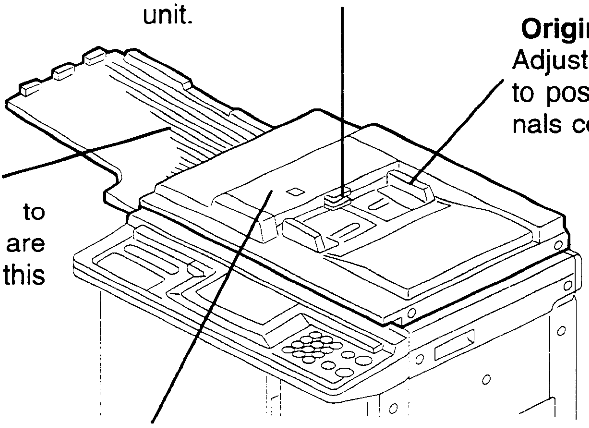
- If you press the **Proof** key or the **Print Start** key after finishing one print job, the beeper sounds and you cannot make prints.
- You cannot cancel Security mode even if you turn off the main switch.
- If you make the next master, Security mode is canceled.

OPTIONAL FUNCTIONS

Printing Using The Optional 20 Originals Or 50 Originals Document Feeder

Guide to document feeder components

- If you have optional sorter staplers and you want to have a document feeder, the optional 50 originals document feeder should be equipped with your machine.



ADF Unit Open Lever
Use to open the ADF unit.

Original Guides
Adjust these guides to position the originals correctly.

Original Tray
Originals used to make masters are delivered to this tray.

ADF Unit
Feeds the original to the master making position.

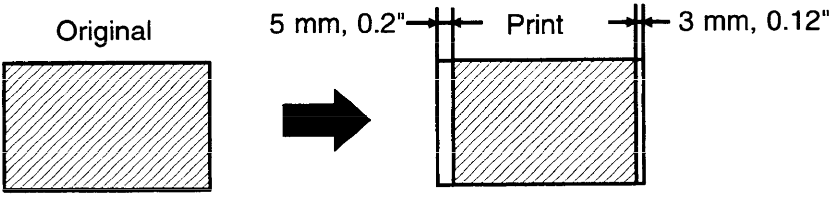
Originals

☐ The following types of originals are not recommended for use with the optional document feeder. Set these types of originals on the exposure glass.

- Originals heavier than 127.9 g/m^2, 34 lb
- Originals lighter than 40.7 g/m^2, 10.8 lb
- Carbon coated originals
- Damaged originals
- Originals with glue on them
- Originals perforated for ring binders
- Book originals
- Originals written with a pencil or ball-point pen
- Originals smaller than 90 mm x 140 mm, 3.6" x 5.6"
- Originals larger than 307 mm x 432 mm, 12.0" x 17.0"
- Folded, curled, creased originals
- Bound, stapled, or clipped originals

☐ If you use paste-up originals, make sure the pasted parts hold firmly to the base sheet. If the thickness of the paste-up original is more than 0.2 mm, 1/125" and the space between the pasted parts is less than 2 mm, 2/25", a shadow might appear on the prints.

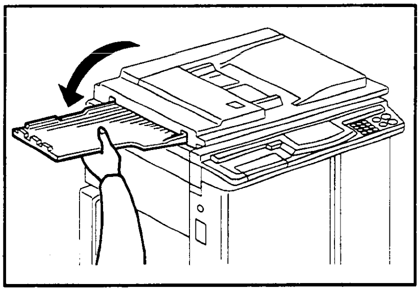
☐ The first 5 mm, 0.2", of the leading edge and the last 3 mm, 0.12", of the trailing edge cannot be printed. Make sure the leading edge margin is at least 5 mm, 0.2", and the trailing edge margin is at least 3 mm, 0.12".



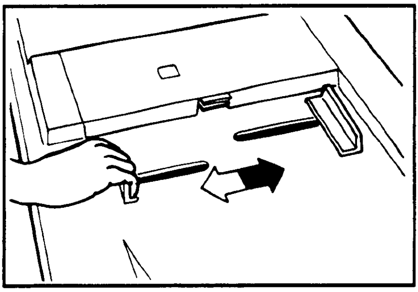
Setting originals into the document feeder

- ❐ If you set one original into the document feeder while another original is still on the exposure glass, the original set into the document feeder will be scanned first.

1 Set the original tray.

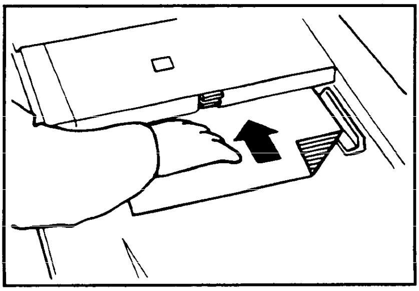


2 Adjust the original guides to the size of the originals.

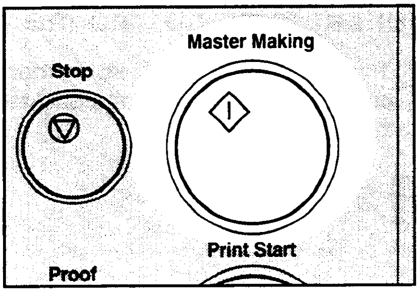


3 Insert the originals face down in the document feeder until it stops.

- ❐ Do not insert different size originals at the same time.
- ❐ Approximately 20 originals can be inserted at one time in the 20 originals document feeder. The first (bottom) original will be fed first.
- ❐ Approximately 50 originals can be inserted at one time in the 50 originals document feeder. The last (top) original will be fed first.
- ❐ The guides must fit snugly against both sides of the stack.



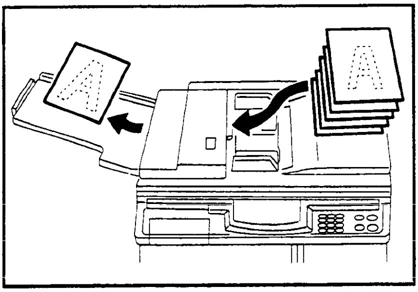
4 Set the required image settings and press the **Master Making** key.



5 Make your prints.

❒ If the next original has been set in the document feeder before the machine stops, that original is fed automatically and a trial print is delivered to the paper delivery table after the print of the first original is completed. Check the image position of the trial print of the next original. If necessary, make proof prints using the **Proof** key to check the image position again.

❒ When you set originals in the 50 originals document feeder, the last original (original set on the top of the original stack in the document feeder) will be delivered to the original tray first and the first original (original set at the bottom of the original stack in the document feeder) will be delivered to the original tray last. So, the order of originals is inverted as shown in the illustration. Reset the order of originals.



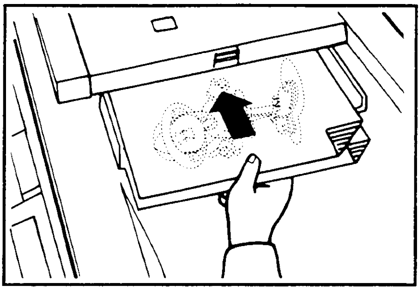
Multi copy with the document feeder

❒ ☛ See page 54 for details about the Multi Copy function.

1 Select Combine 2 Originals mode and insert the 2 originals face down, tops pointing towards the operation side.

or

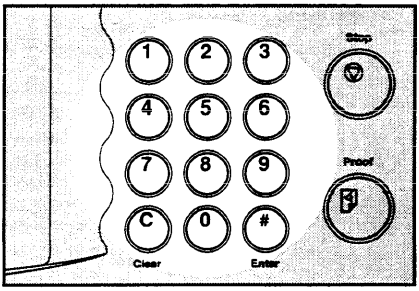
Select Combined Print mode and insert the 2 originals face down, tops towards the paper delivery table.



❒ When you use the optional 20 originals document feeder, the bottom original will be printed on the leading part of print.

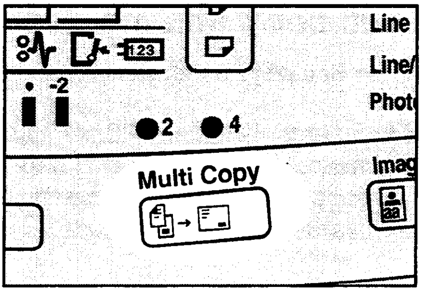
❒ When you use the optional 50 originals document feeder, the top original will be printed on the leading part of print.

2 Enter the number of prints using the **Number** keys.

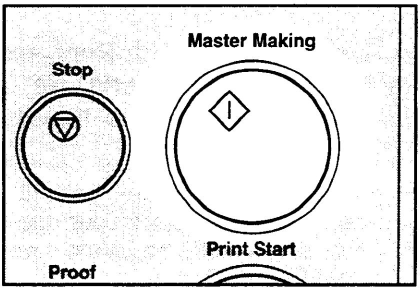


3 Check the print paper size and the reproduction ratio.

4 Press the **Multi Copy** key once to select the Combine 2 Originals function. Press the **Multi Copy** key twice to select the Combined Print function.


Line
Line/
Phot
•2 •4
Multi Copy
Imag

5 Press the **Master Making** key. Check the image position of the trial or proof print.


Master Making
Stop
Print Start
Proof

- ❐ If the image position is not correct, adjust it using the **Image Position** keys (☛ see page 21) or the side plate fine adjusting dial (☛ see page 22).
- ❐ After the first original is on the master, the second original is fed.
- ❐ If you set only one original, the beeper sounds after the first original is on the master. Set the second original and the desired image settings. Then, press the **Master Making** key.

Group printing from different originals with the document feeder (Memory mode)

❒ To prevent original misfeeds, do not set originals of different sizes.

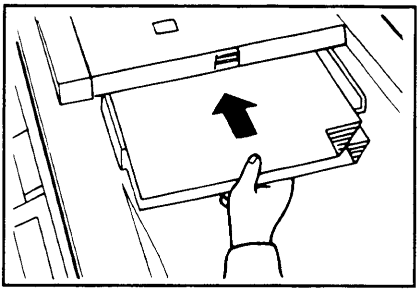
❒ Do not set more than 20 originals at one time in the optional 20 originals document feeder.

1 Follow steps 1 to 7 on pages 50 and 51.

2 Set the originals face down into the document feeder.

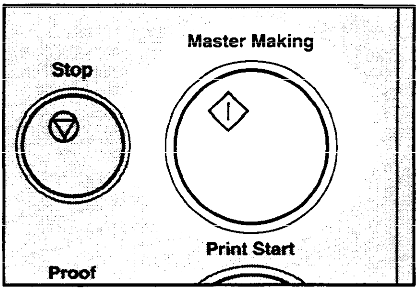
❒ When you use the optional 20 originals document feeder, the originals are fed from the bottom of the stack. Make sure that the originals are set in the correct sequence with the first original on the bottom.

❒ When you use the optional 50 originals document feeder, the originals are fed from the top of the stack. Make sure that the originals are set in the correct sequence with the first original on top.

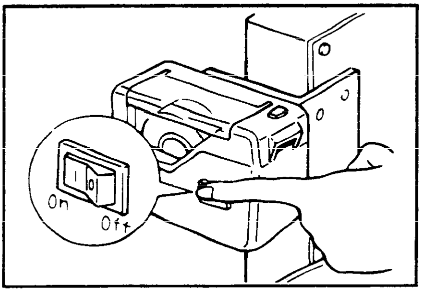


3 Press the **Master Making** key. Check the image position of the trial or proof print.

❒ If the image position is not correct, adjust it using the **Image Position** keys (☛ see page 21) or the side plate fine adjusting dial (☛ see page 22).

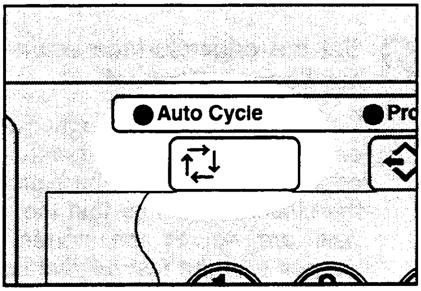


4 Turn on the power switch of the optional tape dispenser.



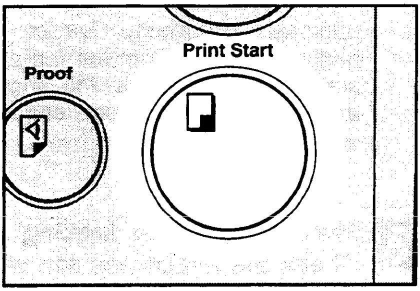
5 Press the **Auto Cycle** key.

☐ In Auto Cycle mode, printing starts automatically after a trial print is delivered.



6 Press the **Print Start** key.

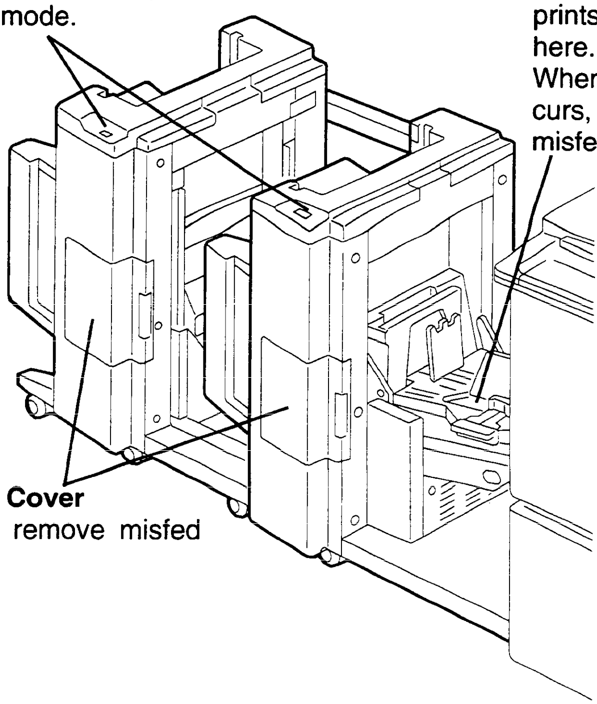
☐ After the last page of each set is fed out to the paper delivery table, the tape dispenser drops a strip of paper on the top of the paper stack. The next cycle begins.



Printing Using The Optional Sorter Stapler

Guide to 20-bin sorter stapler components

- Up to 2 sorter staplers can be equipped with your machine.
- If you have optional sorter staplers and you want to have a document feeder, the optional 50 originals document feeder should be equipped with your machine.
- Sorter staplers and a tape dispenser cannot be equipped together.
- When you use the Sort, Staple Sort or Class Sort function, set the speed to Setting 1.



Staple Key
Press to set or cancel Staple mode.

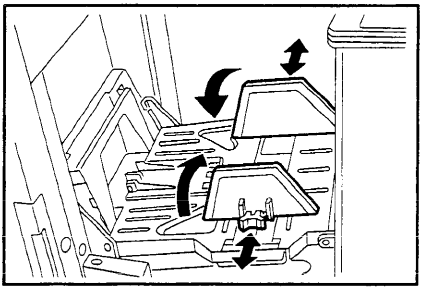
Non-sort Tray
If you do not select Sort, Staple Sort or Class Sort mode, prints are delivered here.
When a misfeed occurs, open to remove misfed paper.

Stapler Cover
Open to remove misfed staples.

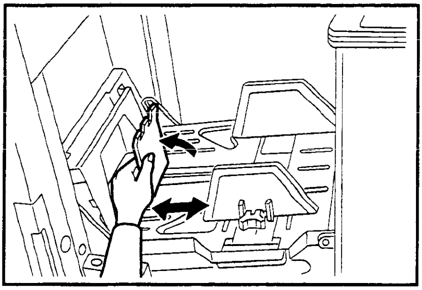
When not making prints in Sort, Staple, or Class Sort mode

When you have optional sorter staplers and you do not select Sort, Staple Sort, or Class Sort mode, the prints are delivered to the non-sort tray.

1 Lift the side plates of the non-sort tray and move them to match the paper size.

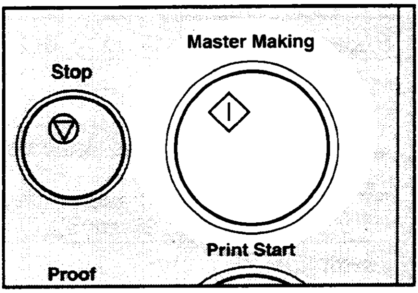


2 Lift the end plate of the non-sort tray and adjust it to the paper size.

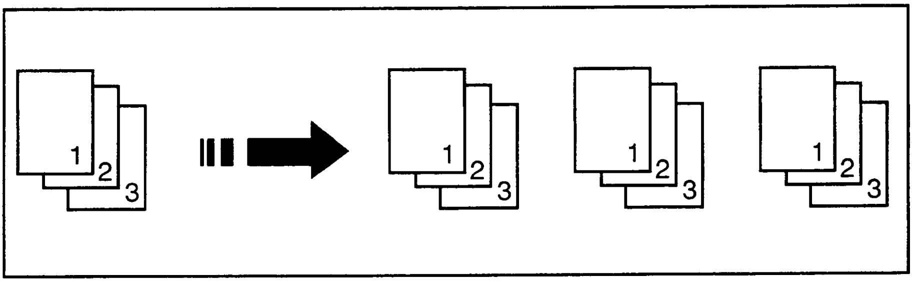


3 Set your original on the exposure glass or in the optional document feeder.

4 Press the **Master Making** key. Then, make your prints.



Sorting into sets (123, 123, 123) (Sort mode)



One print of each original is delivered to each bin and prints are collated into sets.

❒ For Sorting, the following limitations apply:

Metric version:

Paper size	A3 ▭, B4 ▭, A4 ▯▭, B5 ▯▭, A5 ▭.
Paper weight	64 ~ 82 g/m^2
Maximum capacity of bins	Paper sizes described above with exception of A3: 50 sheets A3 and paper sizes other than the sizes described above: 25 sheets
Maximum number of sets	20 sets (per sorter stapler)
Paper that cannot be used	❒ Roughly-cut paper ❒ Paper of different thickness in the same stack ❒ Buckled or curled paper ❒ Short grain paper

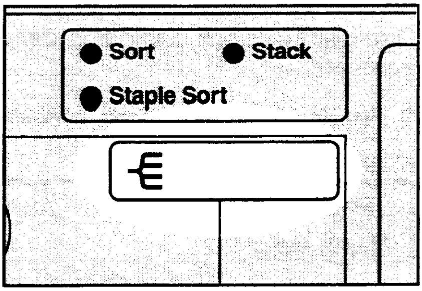
Inch version:

Paper size	11" x 17" ▭ , 8 1/2" x 14" ▭ , 8 1/2" x 11" ▯ ▭ , 5 1/2" x 8 1/2" ▭.
Paper weight	17.1 ~ 21.8 lb
Maximum capacity of bins	Paper sizes described above with exception of 11" x 17": 50 sheets 11" x 17" and paper sizes other than the sizes described above: 25 sheets
Maximum number of sets	20 sets (per sorter stapler)
Paper that cannot be used	❒ Roughly-cut paper ❒ Paper of different thickness in the same stack ❒ Buckled or curled paper ❒ Short grain paper

❒ Print sets over the maximum number of sets are delivered to the non-sort tray.

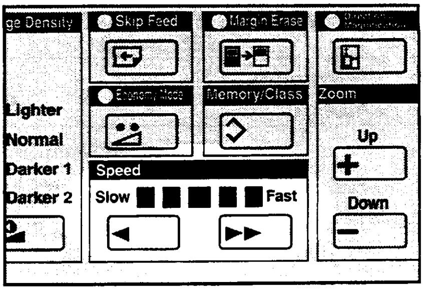
When you set originals on the exposure glass:

1 Press the **Sorter** key to light the Sort indicator.


Sort
Stack
Staple Sort

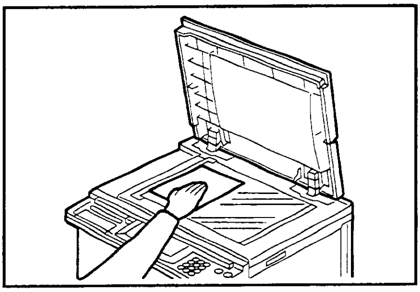
2 Set the speed to Setting 1.

❒ If you do not set the speed to Setting 1, the Speed function Setting 1 indicator and the Special Feature indicator blink.


ge Density
Skip Feed
Margin Erase
Memory/Class
Zoom
Lighter
Normal
Darker 1
Darker 2
Speed
Slow
Fast
Up
Down

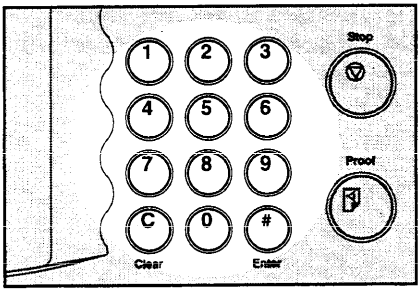
3 Set the last original on the exposure glass.

- Make sure that the last original is set first. Otherwise, prints are delivered to the bins in the wrong order.



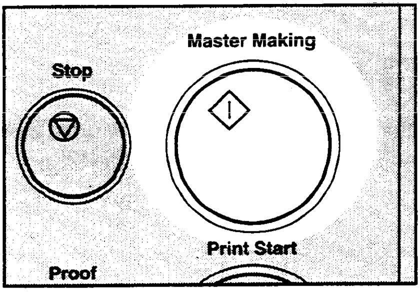
4 Enter the number of sets required using the **Number** keys.

- For the maximum number of sets, ☛ see page 79 or 80.


1
2
3
Stop
4
5
6
7
8
9
Proof
C
0
#
Clear
Enter

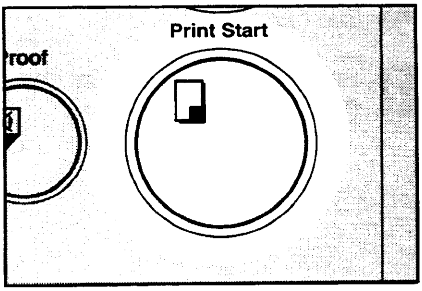
5 Press the **Master Making** key. Check the image position of the trial or proof print.

- If the image position is not correct, adjust it using the **Image Position** keys (☛ see page 21) or the side plate fine adjusting dial (☛ see page 22).
- The trial and proof prints are delivered to the non-sort tray.

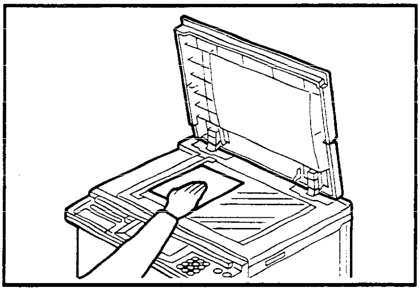

Master Making
Stop
Print Start
Proof

6 Make your prints.

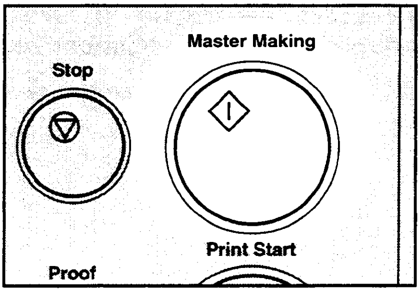
- Each print is delivered to each bin of the sorter stapler.


Print Start
roof

7. Set the second to last original on the exposure glass.



8. Press the **Master Making** key. Check the image position of the trial or proof print.



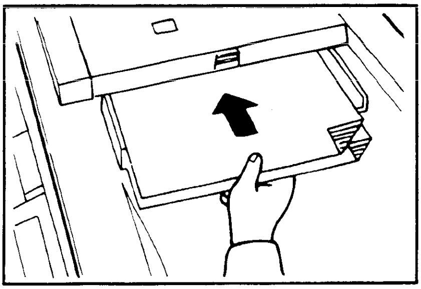
9. Make your prints.

10. Repeat steps 7 through 9 until you have finished printing.

When you set originals in the optional 50 originals document feeder:

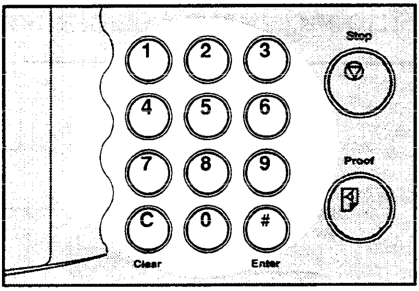
1. Follow steps 1 and 2 on page 80.

2. Set your originals in the optional document feeder.



3 Enter the number of sets required using the **Number** keys.

- ❐ For the maximum number of sets, ☛ see page 79 or 80.


1
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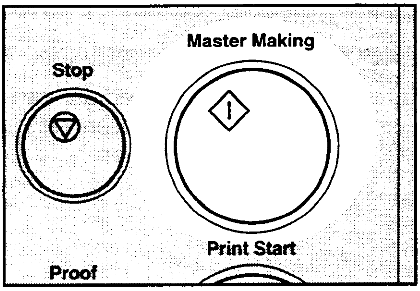
3
4
5
6
7
8
9
C
0
#
Clear
Enter
Stop
Proof

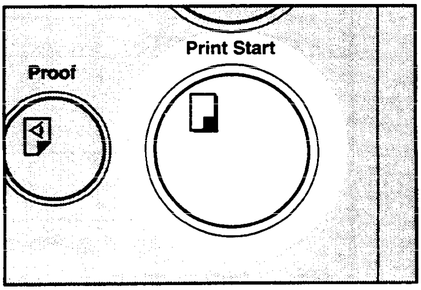
4 Press the **Master Making** key. Check the image position of the trial or proof print.

- ❐ If the image position is not correct, adjust it using the **Image Position** keys (☛ see page 21) or the side plate fine adjusting dial (☛ see page 22).
- ❐ The trial and proof prints are delivered to the non-sort tray.
- ❐ If you press the **Auto Cycle** key, all sets of prints are delivered to the bins automatically after pressing the **Print Start** key. In this case, you cannot make proof prints for each original.


Master Making
Stop
Print Start
Proof

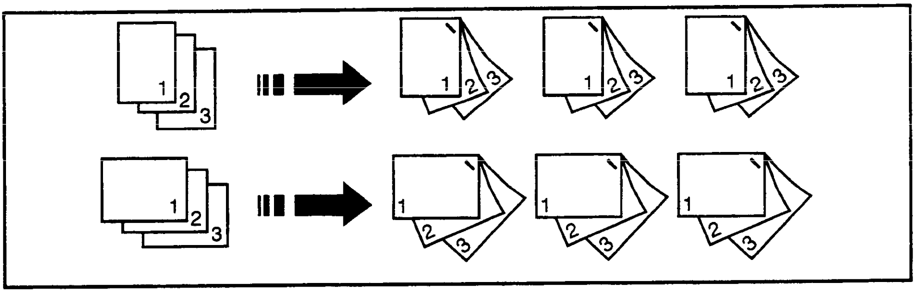
5 Make your prints.

- ❐ Each print is delivered to each bin of the sorter stapler. Then, the next original is fed and the machine makes its master automatically.


Print Start
Proof

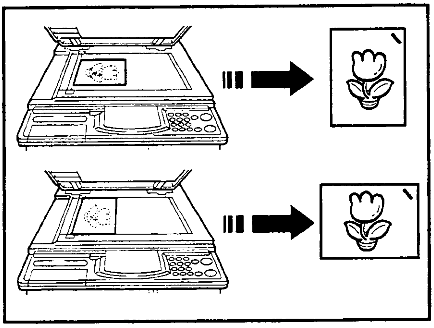
6 Repeat step 5 until you have finished printing.

Stapling prints (Staple Sort mode)



After prints are sorted into sets, they are stapled automatically.

☐ The original set direction and the staple position of the prints are as shown in the illustration.



☐ For Stapling, the following limitations apply:

Metric version:

Paper size	A3 ▭ , B4 ▭ , A4 ▯ ▭ , B5 ▯.
Paper weight	64 ~ 82 g/m^2
Stapler capacity	64 g/m^2: 2 ~ 50 sheets 75 g/m^2: 2 ~ 42 sheets 80 g/m^2: 2 ~ 40 sheets
Maximum number of sets	20 sets (per sorter stapler)
Paper that cannot be used	☐ Roughly-cut paper ☐ Paper of different thickness in the same stack ☐ Buckled or curled paper ☐ Short grain paper

Inch version:

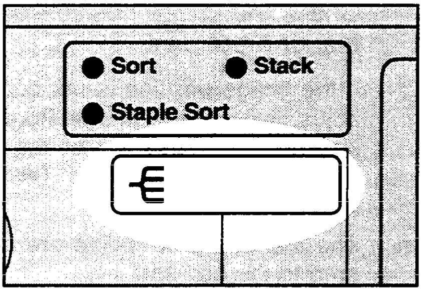
Paper size	11" x 17" ▭, 8½" x 14"▭, 8½" x 11" ▯ ▭.
Paper weight	17.1 ~ 21.8 lb
Stapler capacity	17.1 lb: 2 ~ 50 sheets 20.0 lb: 2 ~ 42 sheets 21.8 lb: 2 ~ 40 sheets
Maximum number of sets	20 sets (per sorter stapler)
Paper that cannot be used	❒ Roughly-cut paper ❒ Paper of different thickness in the same stack ❒ Buckled or curled paper ❒ Short grain paper

- Print sets over the maximum number of sets are delivered to the non-sort tray.

Setting stapling before printing (Auto Staple mode)

- This function can be used only when your machine is equipped with the optional 50 originals document feeder.

1 Press the **Sorter** key to light the Staple Sort indicator.


● Sort
● Stack
● Staple Sort

2 Set the speed to Setting 1.

- If you do not set the speed to Setting 1, the Speed function Setting 1 indicator and the Special Feature indicator blink.

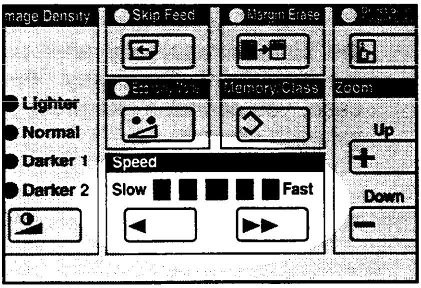
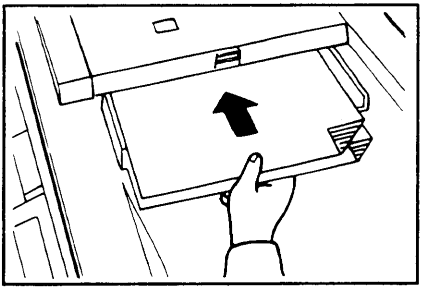
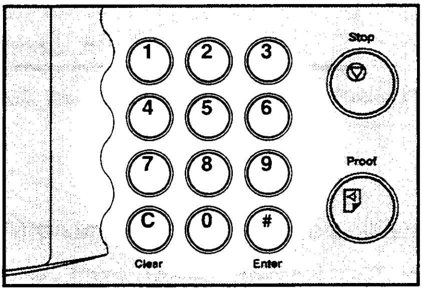


Image Density
Skip Feed
Margin Erase
Economy Mode
Memory Class
Zoom
Lighter
Normal
Darker 1
Darker 2
Speed
Slow
Fast
Up
Down

3 Set your originals in the optional 50 originals document feeder.



4 Enter the number of sets required using the **Number** keys.


1
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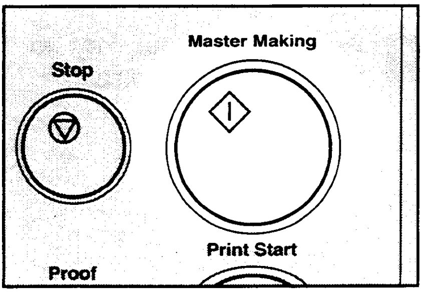
9
C
0
#
Clear
Enter
Stop
Proof

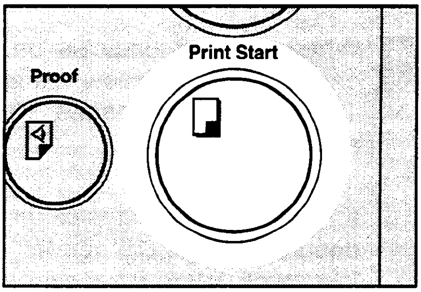
5 Press the **Master Making** key. Check the image position of the trial or proof print.


Master Making
Stop
Print Start
Proof

- ❐ If the image position is not correct, adjust it using the **Image Position** keys (☛ see page 21) or the side plate fine adjusting dial (☛ see page 22).
- ❐ The trial and proof prints are delivered to the non-sort tray.
- ❐ If you press the **Auto Cycle** key, all sets of prints are delivered to the bins automatically after pressing the **Print Start** key. In this case, you cannot make proof prints for each original.

6 Make your prints.

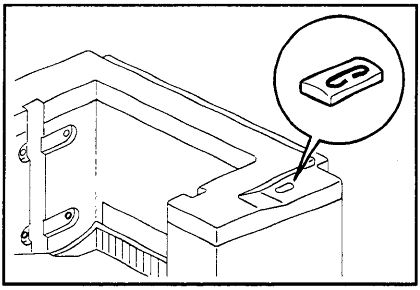
- ❒ Each print is delivered to each bin of the sorter stapler. Then, the next original is fed and the machine makes its master automatically.



7 Repeat step 6 until you have finished printing.

⚠**Caution:** **Do not insert your hands in the bins during printing or stapling.**

- ❒ After all prints are delivered to the bins, the machine starts stapling.
- ❒ To cancel Staple Sort mode, press the **Staple** key on the sorter stapler. If you press the **Staple** key again, the machine starts stapling prints again.

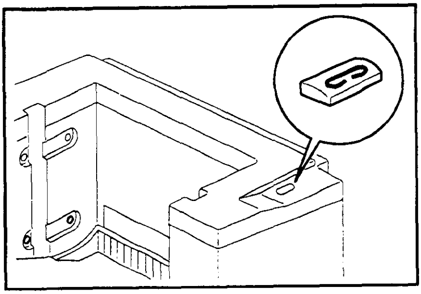


Setting stapling after printing (Manual Staple Mode)

1 When you set originals on the exposure glass, follow the steps 1 through 10 on pages 80, 81 and 82.

When you set originals in the optional document feeder, follow steps 1 through 6 on pages 82 and 83.

2 When you use 2 or more originals, the **Staple** key on the sorter stapler will be lit. Press the **Staple** key.



⚠**Caution:** **Do not insert your hands in the bins during printing or stapling.**

❑ To cancel Staple Sort mode while stapling, press the **Staple** key again. If you want to restart stapling, press the **Staple** key once again.

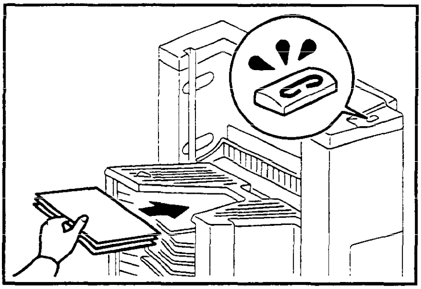
Bypass Feed Stapling

You can staple a stack of paper that is set on the first bin of the sorter stapler.

- ☐ Before setting paper on the first bin, make sure that no prints remain on any of the bins.
- ☐ For stapler capacity, ☛ see page 84 or 85.

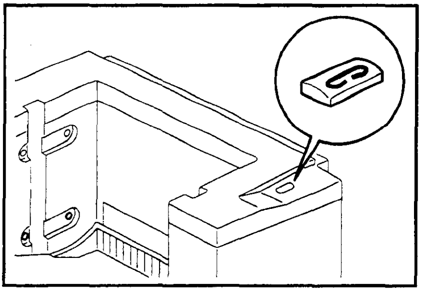
1 Set the stack of paper you want to staple on the first bin.

- ☐ Make sure that the **Staple** key on the sorter stapler is lit.
- ☐ The paper stack must make contact the front cover and the fence inside of the bins.

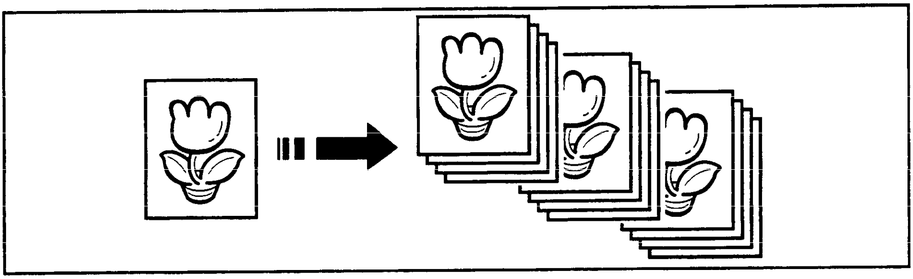


2 Press the **Staple** key.

⚠**Caution: Do not insert your hands in the bin during stapling.**



Group printing from the same original with the sorter stapler (Class Sort mode)



Use this function to make sets of prints from the same original. The same number of prints is made for each set. They are delivered to the each bin of the sorter stapler.

☐ For Class Sorting, the following limitations apply:

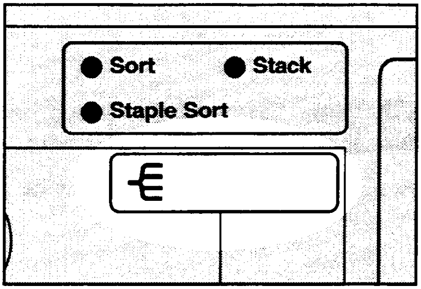
Metric version:

Paper size	A3 ▭ , B4 ▭ , A4 ▯ ▭, B5 ▯ ▭ , A5 ▭.
Paper weight	64 ~ 82 g/m^2
Capacity of bins	Paper sizes described above with exception of A3: 50 sheets A3 and paper sizes other than the sizes described above: 25 sheets
Maximum number of sets	18 sets (When you have 1 sorter stapler) 38 sets (When you have 2 sorter staplers)
Paper that cannot be used	☐ Roughly-cut paper ☐ Paper of different thickness in the same stack ☐ Buckled or curled paper ☐ Short grain paper

Inch version:

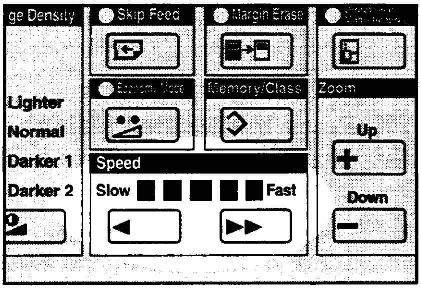
Paper Size	11" x 17" ▭ , 81/2" x 14" ▭ , 81/2" x 11" ▯ ▭ , 51/2" x 81/2" ▯
Paper Weight	17.1 ~ 21.8 lb
Capacity of bins	Paper sizes described above with exception of 11" x 17": 50 sheets 11" x 17" and paper sizes other than the sizes described above: 25 sheets
Maximum number of sets	18 sets (When you have 1 sorter stapler) 38 sets (When you have 2 sorter staplers)
Paper that cannot be used	☐ Roughly-cut paper ☐ Paper of different thickness in the same stack ☐ Buckled or curled paper ☐ Short grain paper

1. Press the **Sorter** key to light the Stack indicator.


Sort
Stack
Staple Sort

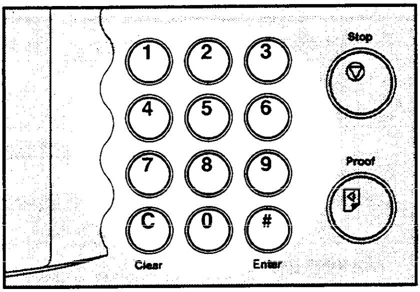
2. Set the speed to Setting 1.

☐ If you do not set the speed to Setting 1, the Speed function Setting 1 indicator and the Special Feature indicator blink.


ge Density
Skip Feed
Margin Erase
Memory/Class
Zoom
Lighter
Normal
Darker 1
Darker 2
Speed
Slow
Fast
Up
Down

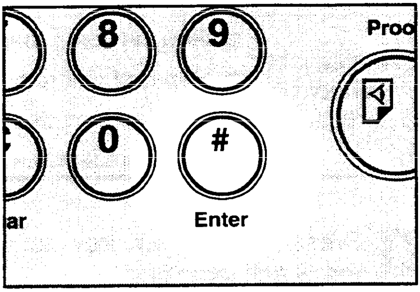
3. Set an original on the exposure glass or in the document feeder.

4 With the **Number** keys, enter the number of prints for each set to be made from the original.



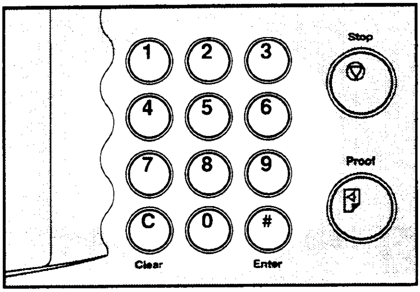
1
2
3
4
5
6
7
8
9
C
0
#
Clear
Enter
Stop
Proof

5 Press the **Enter** key.



6 With the **Number** keys, enter the desired number of sets.

- ❑ For the maximum number of sets, ☛ see page 90 or 91.



1
2
3
4
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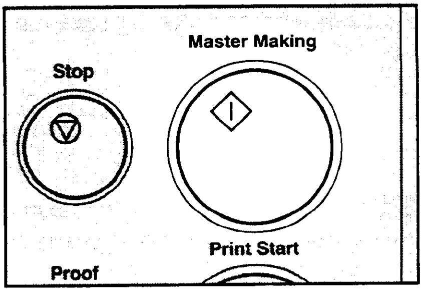
6
7
8
9
C
0
#
Clear
Enter
Stop
Proof

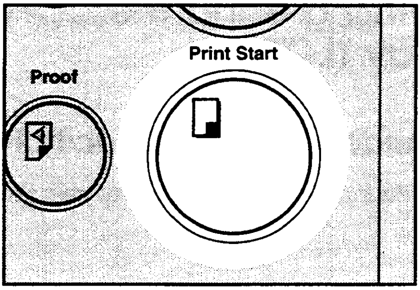
5 Press the **Master Making** key. Check the image position of the trial or proof print.

- ❑ If the image position is not correct, adjust it using the **Image Position** keys (☛ see page 21) or the side plate fine adjusting dial (☛ see page 22).



Master Making
Stop
Print Start
Proof

6 Make your prints.

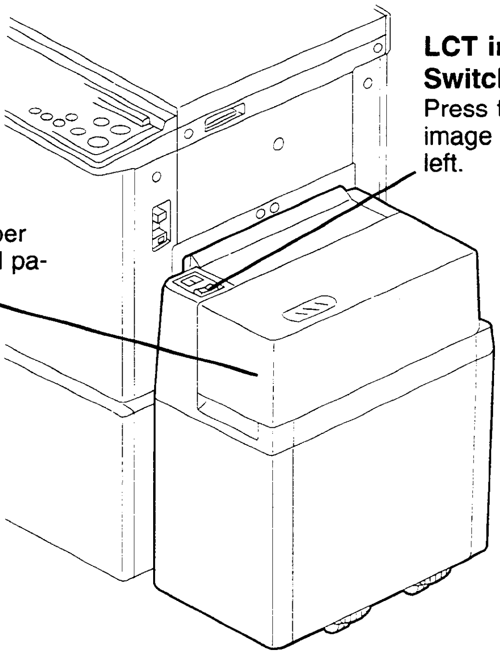


❐ When you want to make prints using another original, remove prints from the bins. Then, repeat steps 3 through 6.

Printing Using The Optional Large Capacity Tray (LCT)

Guide to large capacity tray components

☐ To install the large capacity tray, the LCT cabinet is required.



LCT image position Switch
Press to shift the print image to the right or left.

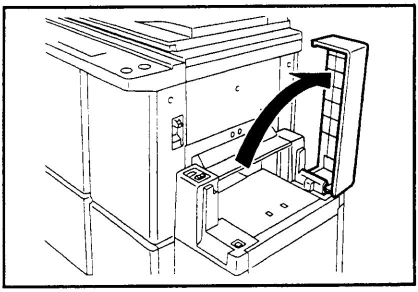
LCT Cover
Open to load paper or remove misfed paper.

*** Paper Cassette for LCT**

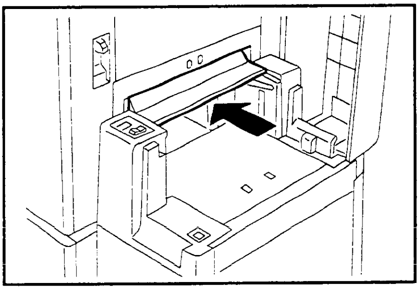
Loading paper

☐ Maximum paper capacity is as follows:
4,000 sheets (64 g/m^2, 17 lb)
3,000 sheets (80 g/m^2, 20 lb).

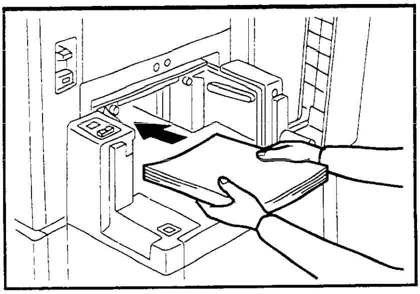
1 Open the LCT cover.



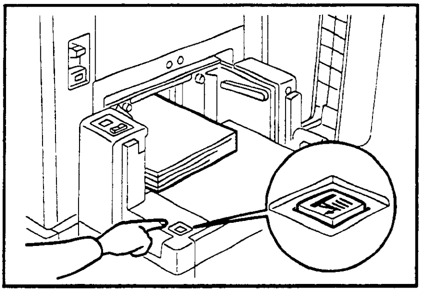
2 Push the slide cover in.



3 Load 500 sheets of paper at a time.

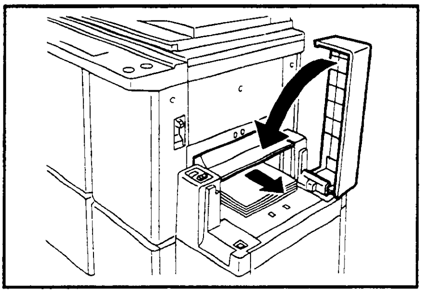


4 Press the **Down** key.



5 Repeat steps 3 and 4 until you have finished loading paper.

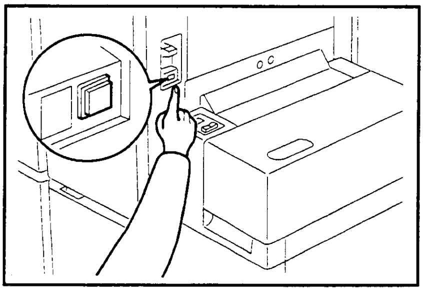
6 Close the slide cover and LCT cover.



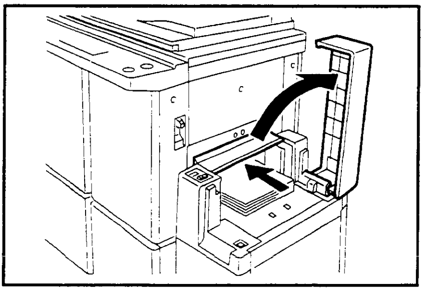
Changing paper size

❒ The following sizes can be set in the LCT.
Metric version : A3 ▭, B4 ▭, A4 ▯▭, B5 ▯▭, A5 ▭.
Inch version : 11" x 17" ▭, 81/2" x 14" ▭, 81/2" x 11" ▯▭.

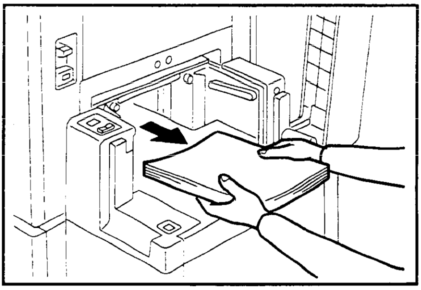
1 Press the **Change Paper** key with the LCT cover closed.



2 After the beeper sounds, open the LCT cover and push the slide cover in.

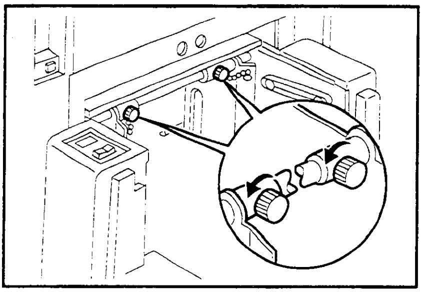


3 Remove paper from the LCT.

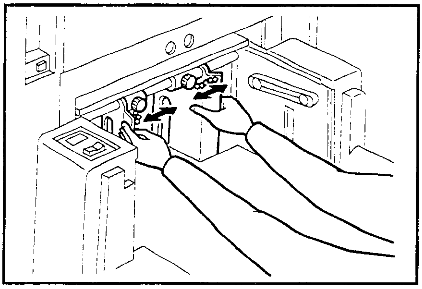


4 Repeat steps 1 through 3 until no paper remains in the LCT.

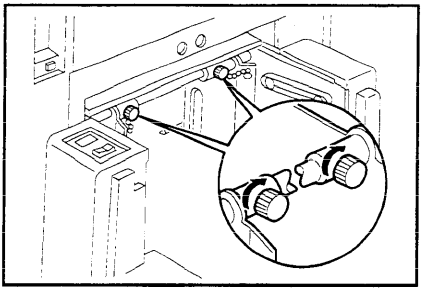
5 Loosen the screws of the side plates.



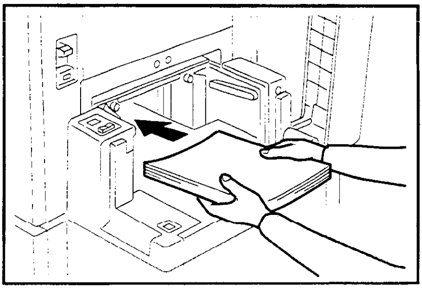
6 Adjust the side plates to match the paper size.



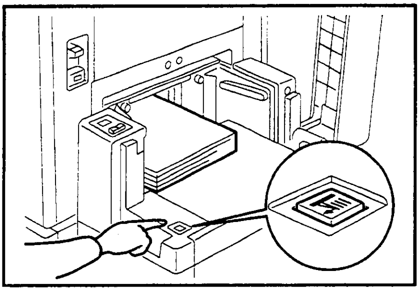
7 Secure the side plates with the screws.



8 Load 500 sheets of paper at a time.

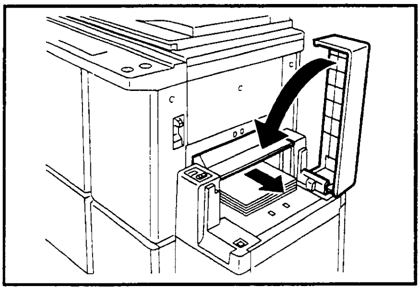


9. Press the **Down** key.



10. Repeat steps 8 and 9 until you have finished loading paper.

11. Close the slide cover and LCT cover.

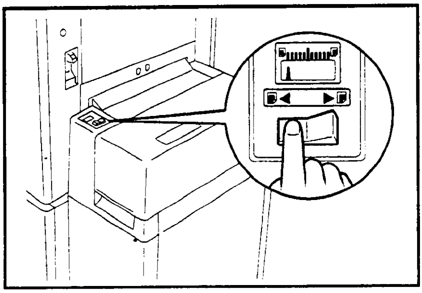


Adjusting the image position to the right or left

- ❐ The image position can be shifted up to about 10 mm, 2/5" each way. Each division on the scale is 2 mm, 0.08".
- ❐ If your machine is equipped with the optional sorter stapler, the image position is shifted to 3 mm, 0.12" for each division on the scale.

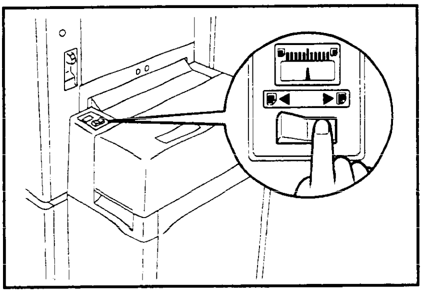
Shifting the image to the right

1 Press the LCT image position switch as shown in the illustration.



Shifting the image to the left

1 Press the LCT image position switch as shown in the illustration.



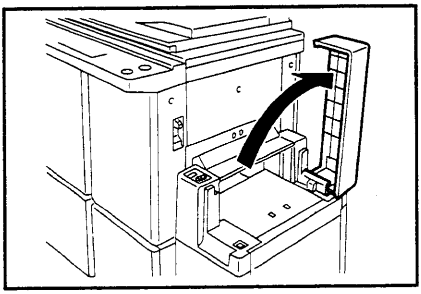
Printing using the paper cassette for LCT

If you are making prints using the optional large capacity tray, you can change the paper size temporarily by using the paper cassette for LCT.

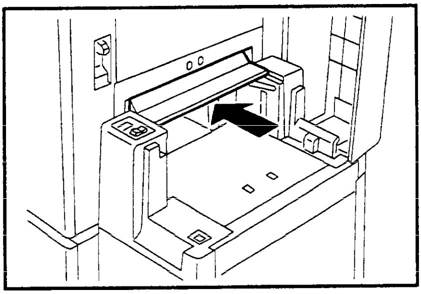
❒ Maximum paper capacity is as follows:
500 sheets (64 g/m^2, 17 lb)
400 sheets (80 g/m^2, 20 lb).

Loading paper

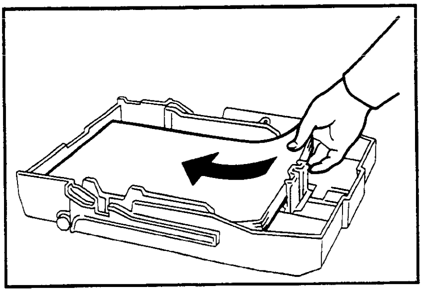
1 Open the LCT cover.



2 Push the slide cover in.

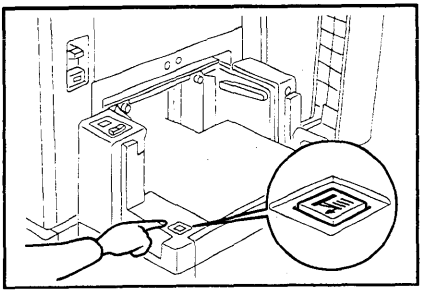


3 Load paper in the paper cassette for LCT.

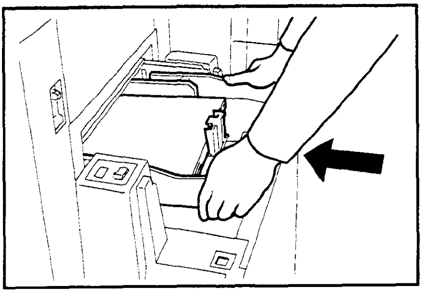


4 Press the **Down** key for about 2 seconds.

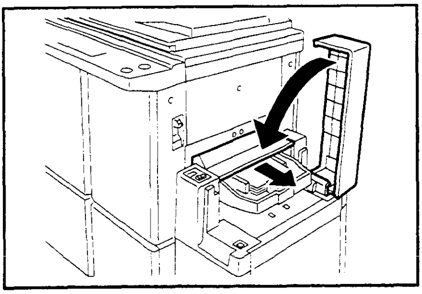
❑ Make sure that the **Down** key is not lit.



5 Push the cassette forward until it stops.

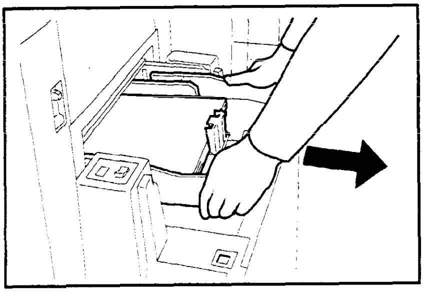


6 Close the slide cover and LCT cover.



7 Make your prints.

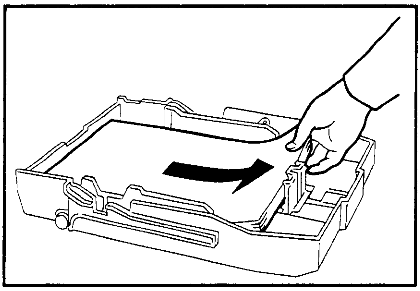
8 After printing is finished, remove the cassette and close the slide cover and LCT cover.



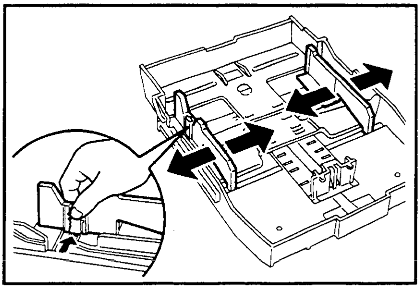
Changing paper size

❒ The following sizes can be set in the paper cassette for LCT.
Metric version: A3 ▭, B4 ▭, A4 ▯▭, B5 ▯▭, A5 ▭, A6 ▭.
Inch version: 11" x 17" ▭, 8 1/2" x 14" ▭, 8 1/2" x 11" ▯▭.

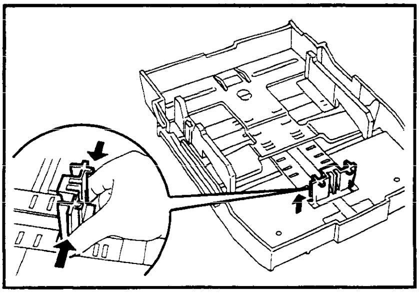
1 Remove paper from the cassette.



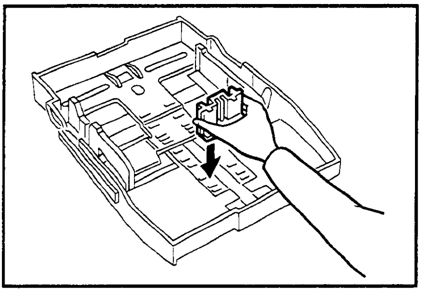
2 While pressing the release lever on the left guide, adjust the left and right side guides to match the paper size.



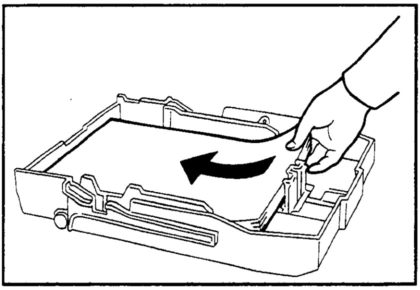
3 Remove the end plate as shown in the illustration.



4 Set the end plate to match the paper size as shown in the illustration.



5 Load paper in the cassette.



6 Set the paper size selector to match the paper size and direction.

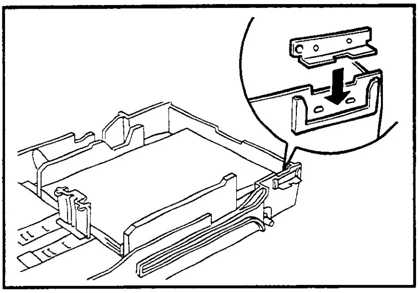
❐ The indicators on the paper size selector and their equivalent paper size are as following.

Metric version:

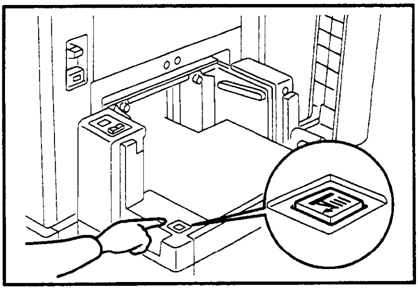
Indicators	Paper size
A3	A3 ▭
B4	B4 ▭
A4	A4 ▯
A4R	A4 ▭
B5	B5 ▯
B5R	B5 ▭
A5R	A5 ▭
A6R	A6 ▭

Inch version:

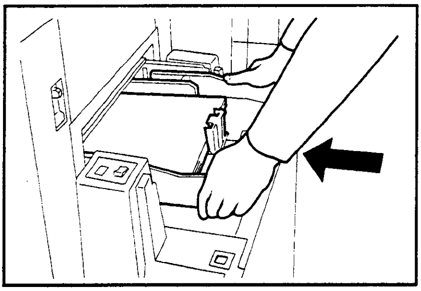
Indicators	Paper size
11 x 17	11" x 17" ▭
81/2 x 14	81/2" x 14" ▭
11 x 81/2	81/2" x 11" ▯
81/2 x 11R	81/2" x 11" ▭



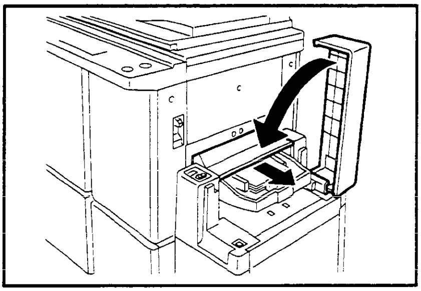
7 Continue pressing the **Down** key until the **Down** key is not lit.



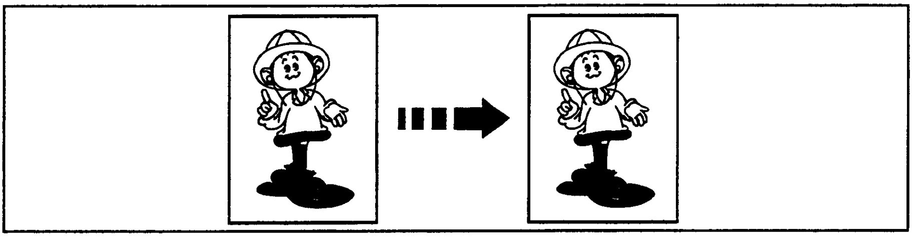
8 Push the cassette forward until it stops.



9 Close the slide cover and LCT cover.



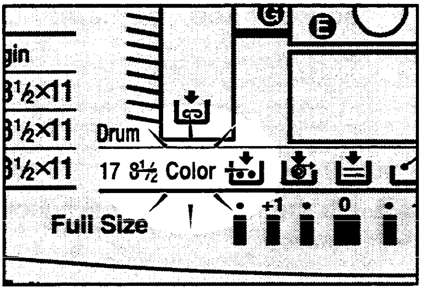
Color Printing Using The Optional Color Drum



Color drum units (red, blue, green, brown, yellow, purple, navy, and maroon) are available as options in addition to the standard black unit. For making color prints, a separate drum unit is necessary for each color.

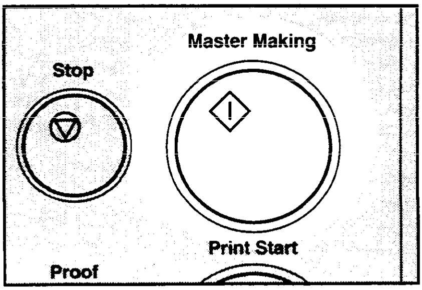
Making color prints

1 Make sure that the Color Print indicator is lit.



2 Press the **Master Making** key. Check the image position on the trial or proof print.

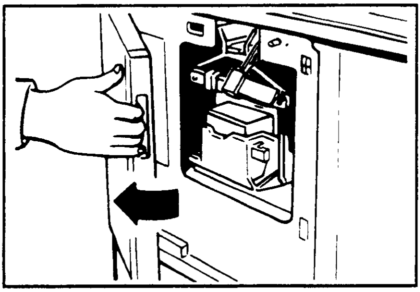
- If the image position is not correct, adjust it using the **Image Position** keys (☛ see page 21) or side plate fine adjusting dial (☛ see page 22).



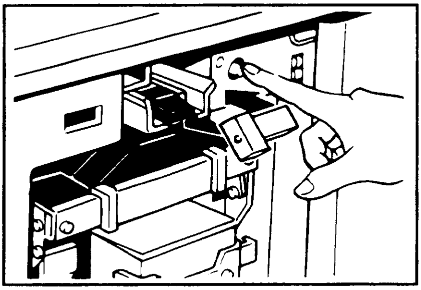
3 Make your prints.

Changing the color drum unit

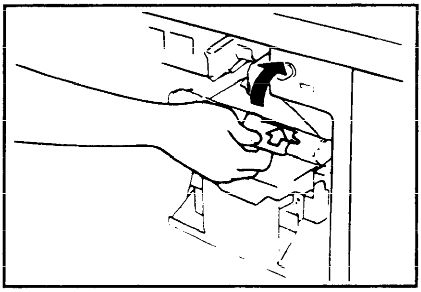
1. Open the front door.



2. Make sure that the lamp of the drum rotation button is green. If this lamp is red, press the drum rotation button until the beeper sounds and the lamp turns green.

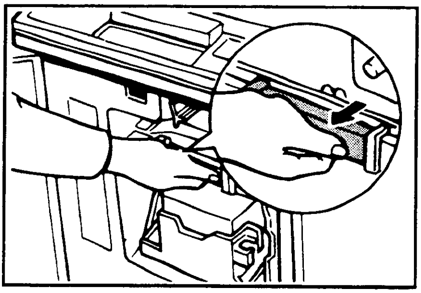


3. Lift the lock lever until it locks in position.

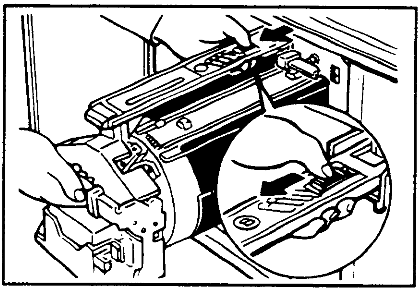


4 Pull out the drum unit handle while pressing the release bar inside the green handle.

❑ If you cannot pull out the drum unit even when the lamp of the drum rotation button is green, push the drum unit handle, then pull out the drum unit.

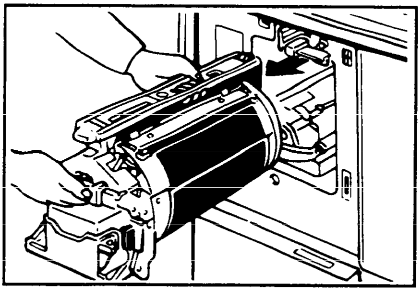


5 Hold the rail on the drum and slide out the drum while pulling the release towards you.

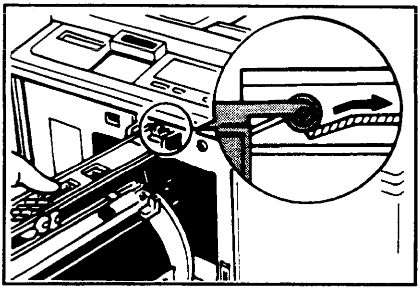


6 Remove the drum unit from the machine while holding the upper drum stay.

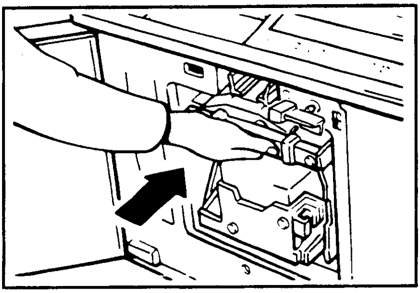
⚠**Caution: Be careful not to let the drum unit fall.**



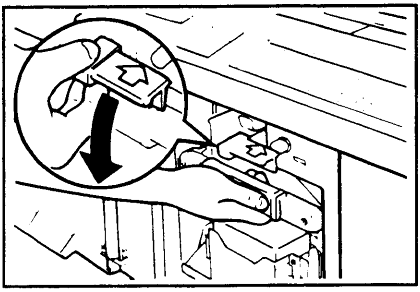
7 Insert the color drum unit along the guide rail.



8 Slide in the drum unit until it locks in position.



9 Lower the drum unit lock lever.



10 Close the front door.

❐ Make sure that the Cover Open indicator turns off, and the Color Drum indicator lights.

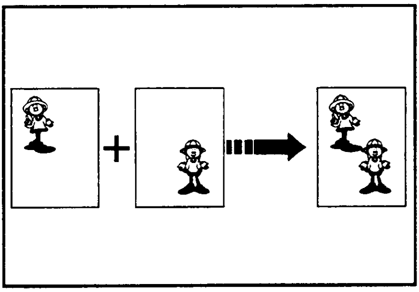
Printing in two colors

After printing in one color, you can print in another color on the same side of the print.

☐ You cannot print in two colors at one time.

☐ Leave the prints for a while before printing on them again to let the ink dry.

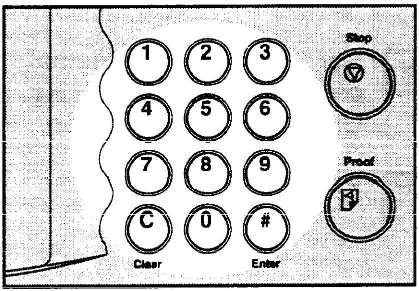
1 Prepare the two originals. Set the first original on the exposure glass.



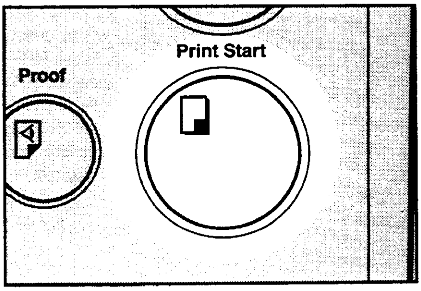
2 Enter the number of prints using the **Number** keys.

3 Press the **Master Making** key. Check the image position of the trial or proof print.

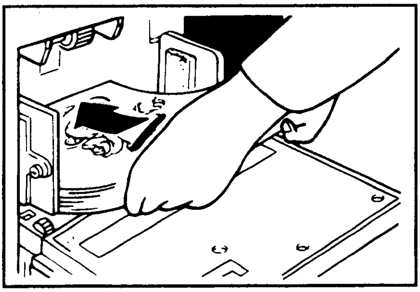
☐ If the image position is not correct, adjust it using the **Image Position** keys (☛ see page 21) or the side plate fine adjusting dial (☛ see page 22).



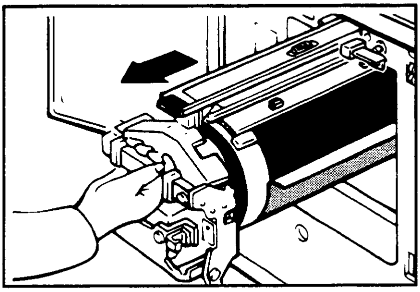
4 Press the **Print Start** key.



5. Remove the prints from the paper delivery table and set them on the paper feed table again as shown in the illustration.

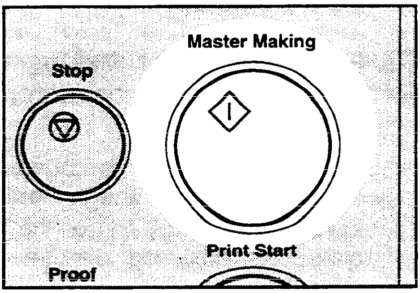


6. Exchange the drum unit. ☛ See page 108.



7. Set the second original and press the **Master Making** key. Check the image position.

8. Press the **Print Start** key.


Master Making
Stop
Print Start
Proof

Changing The Drum Size

To save costs on master rolls, you can shorten the length of each master by changing to an optional smaller drum.

Printing area (at 23°C/73°F, 65% RH):

Max. 290 mm x 412 mm, 11.4" x 16.2" with A3 drum

Max. 290 mm x 204 mm, 11.4" x 8.0" with an optional A4 drum

Master cut length:

A3 drum .... 320 mm x 540 mm, 12.5" x 21.2", 226 masters/roll

Optional A4 drum .... 320 mm x 332 mm, 12.5" x 13", 370 masters/roll

☐ To change the drum unit, follow the same procedure as "Changing the drum unit for color printing". ☛ See page 108.

CHANGING DEFAULT SETTINGS (SERVICE PROGRAM MODE)

Printing needs may vary. To suit your applications, you can adjust the settings for certain functions.

How To Access Service Programs

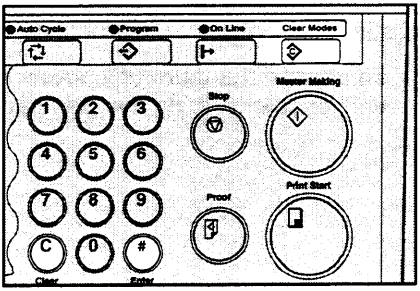
The service programs can be set by following this procedure.

❐ For the service program menu, ☛ see page 130.

1 Press the keys on the operation panel in the following order:
(1) **Clear Modes** key
(2) **Clear** key
(3) **Enter** key.

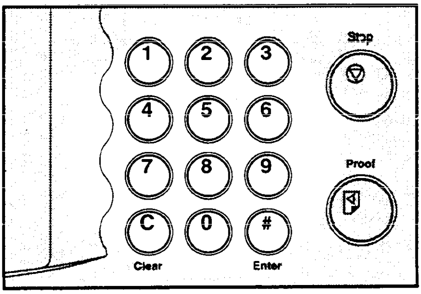
❐ If you press the wrong key, try pressing the above keys from the beginning.

❐ The SP-mode display appears on the guidance display.


Auto Cycle
Program
On Line
Clear Modes
Master Making
Stop
Print Start
Proof
1
2
3
4
5
6
7
8
9
C
0
#
Clear
Enter

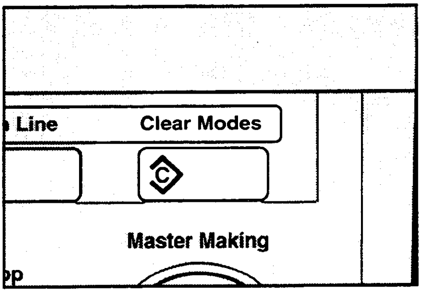
2 Using the **Number** keys, enter the desired service program number (SP No.).

❐ ☛ For the SP No., refer to page 130.


Stop
1
2
3
4
5
6
7
8
9
Proof
C
0
#
Clear
Enter

3 When you want to leave the Service Program mode, press the **Clear Modes** key.

If you want to change the settings of a selected service program, ☛ see page 115.


Line
Clear Modes
Master Making

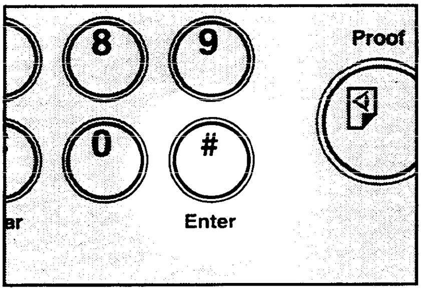
How To Change The Settings Of Service Programs

❐ You can register SP No. 29, 79, 84, 87, 88, 89 or 142 in the **CS Mode** key (☛ See page 117.), and change their settings using the **CS Mode** key. (☛ See page 119 ~ 129.)

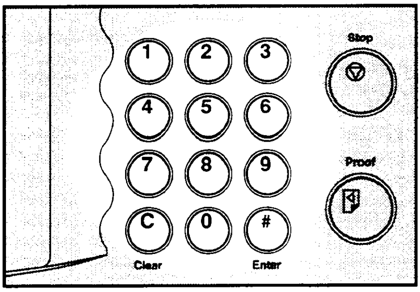
Procedure 1

1 After entering the desired SP No., press the **Enter** key. The value or mode set at the factory will be displayed at the end of the second line on the guidance display.

❐ If you designate the wrong SP No., press the **Clear Modes** key. Then, re-enter the desired SP No.

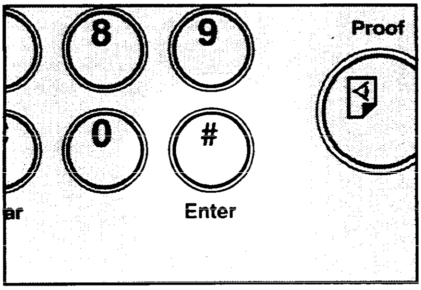


2 Enter the desired value or mode using the **Number** keys.

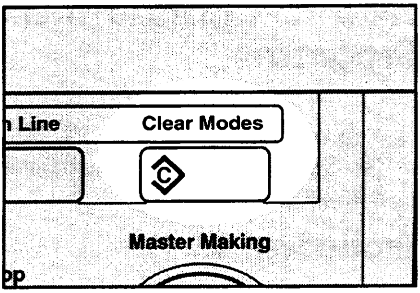


3 Press the **Enter** key to store the desired value or mode.

❐ If you enter the wrong value or mode, press the **Clear Modes** key. Then, go back to step 1.



4 When you want to leave the Service Program mode, press the **Clear Modes** key.


Line
Clear Modes
C
Master Making
p

Procedure 2

You can change the settings of the following 7 service programs using this procedure.

SP No.	Mode	Default
29	Adjust background image in Photo or Line/Photo mode	0: No
79	Quality Start setting	0: No
84	Auto Multi Copy mode selection	0: Multi Copy mode
87	Memory Stack mode	0: Memory mode
88	Auto Memory/Class mode	0: Memory/Class mode
89	Tint mode setting	0: No
142	Paper size detection selection	1: Yes

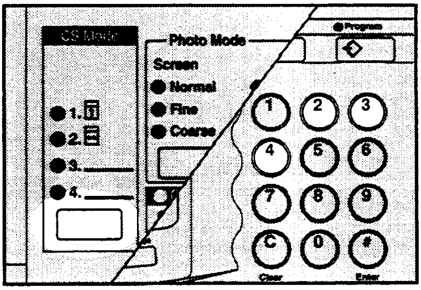
Up to 3 service programs among the above 7 service programs can be registered in the **CS Mode** key. When you recall registered service programs using the **CS Mode** key, the setting is changed and you can make prints.

How to register SP modes in the ***CS Mode key***

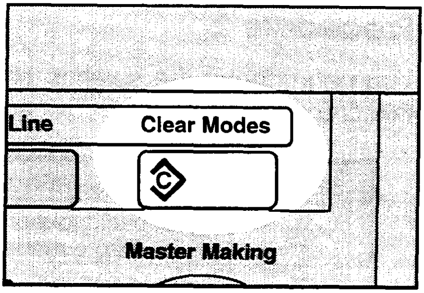
1 Enter the service program mode and select the service program number you want to register. ☛ See page 114.

2 While pressing the **CS Mode** key, press 2, 3 or 4 using the **Number** key until the beeper sounds.

❐ Make sure that the previous function registered under the selected number (2, 3 or 4) is overwritten.



3 Press the **Clear Modes** key.

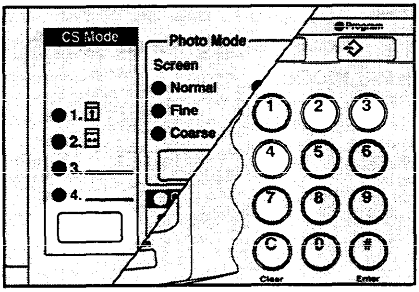

Line
Clear Modes
Master Making

How to make prints with the **CS Mode** key

Photo Background Correct (Adjust background image in Photo or Line/Photo mode)

1. Set your original on the exposure glass or in the optional document feeder.

2. While pressing the **CS Mode** key, press the **Number** key you have registered as Photo Background Correct mode.

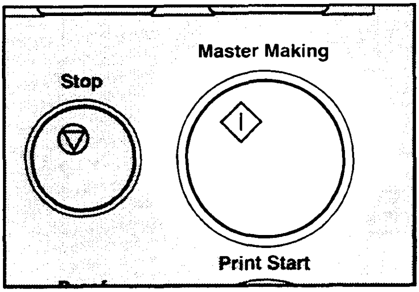

CS Mode
1.
2.
3.
4.
Photo Mode
Screen
Normal
Fine
Coarse
Program
1
2
3
4
5
6
7
8
9
C
0
#
Clear
Enter

3. Select Photo or Line/Photo mode.

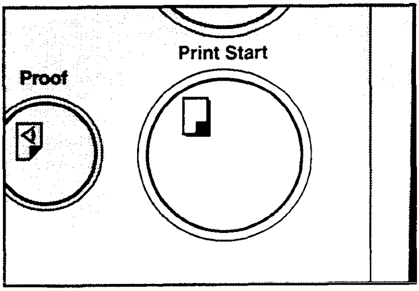
4. Enter the number of prints using the **Number** keys.

5. Press the **Master Making** key. Check the image position of the trial or proof print.

❒ If the image position is not correct, adjust it using the **Image Position** keys (☛ see page 21) or the side plate fine adjusting dial (☛ see page 22).


Master Making
Stop
Print Start

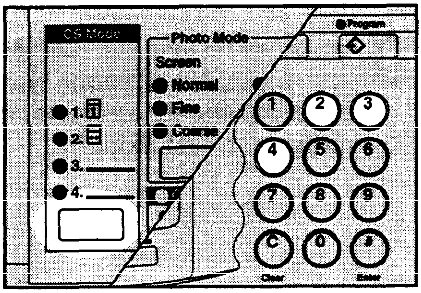
6. Make your prints.


Print Start
Proof

Quality Start setting

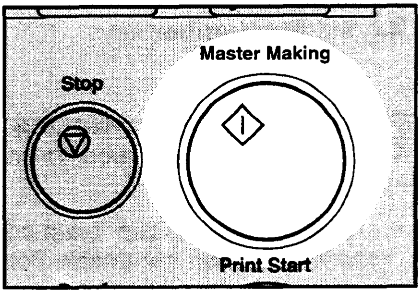
1. Set your original on the exposure glass or in the optional document feeder.

2. While pressing the **CS Mode** key, press the **Number** key you have registered as Quality Start mode.


CS Mode
1.
2.
3.
4.
Photo Mode
Screen
Normal
Fine
Coarse
Program
1
2
3
4
5
6
7
8
9
C
0
#
Clear
Enter

3. Enter the number of prints using the **Number** keys.

4. Press the **Master Making** key.


Master Making
Stop
Print Start

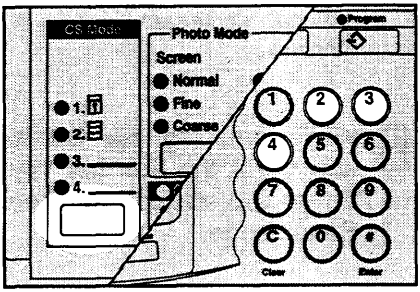
5. Make your prints.

Auto Multi Copy mode

1. Set your original on the exposure glass.

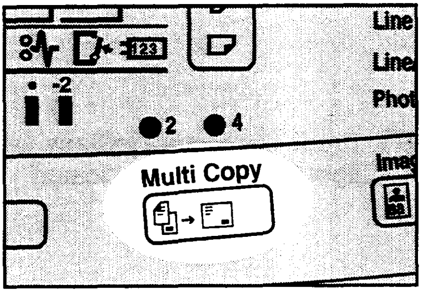
- ❒ You cannot set the original in the optional document feeder in this function.

2. While pressing the **CS Mode** key, press the **Number** key you have registered Auto Multi Copy mode.


CS Mode
Photo Mode
Program
Screen
Normal
Fine
Coarse
1.
2.
3.
4.
1
2
3
4
5
6
7
8
9
C
0
#
Clear
Enter

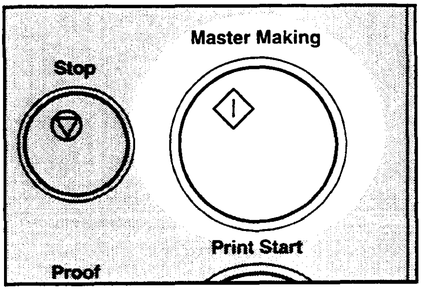
3. Press the **Multi Copy** key either:

   Once to select Combine 2 Original mode.
   or
   Twice to select Combined Print mode.


123
2
2
4
Multi Copy
Line
Line
Phot
Imag

4. Enter the number of prints using the **Number** keys.

5. Press the **Master Making** key.


Master Making
Stop
Print Start
Proof

6. Make your prints.

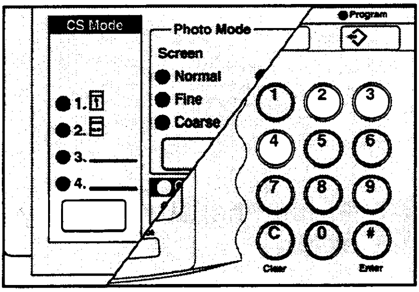
Memory Stack mode

❒ You can use this function when your machine is equipped with the optional tape dispenser.

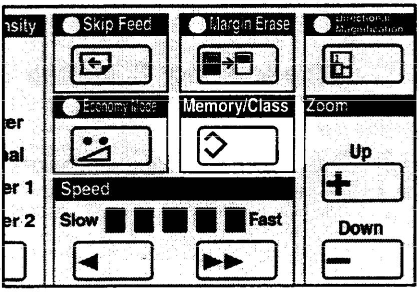
1 Set the original on the exposure glass.

❒ You cannot set the original in the optional document feeder in this function.

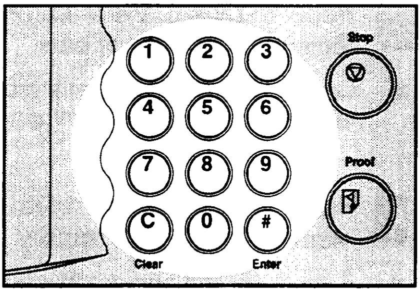
2 While pressing the **CS Mode** key, press the **Number** key you have registered as Memory Stack mode.


CS Mode
1.
2.
3.
4.
Photo Mode
Screen
Normal
Fine
Coarse
Program
1
2
3
4
5
6
7
8
9
C
0
#
Clear
Enter

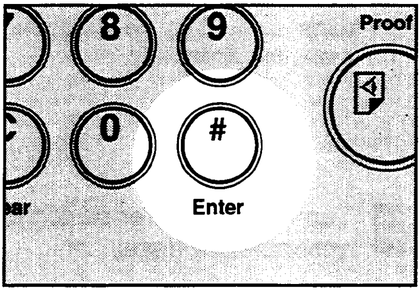
3 Press the **Memory/Class** key to light the Memory indicator.


nsity
er
al
er 1
er 2
Skip Feed
Margin Erase
Directional Magnification
Economy Mode
Memory/Class
Zoom
Up
Down
Speed
Slow
Fast

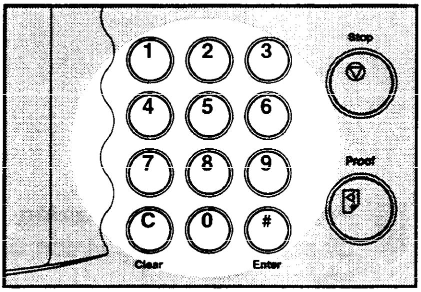
4 With the **Number** keys, enter the desired number of prints for the first set of prints.


1
2
3
Stop
4
5
6
7
8
9
Proof
C
0
#
Clear
Enter

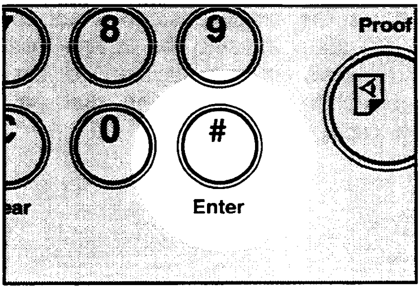
5 Press the **Enter** key.


8
9
Proof
0
#
Enter

6 With the **Number** keys, enter the number of prints for the next set of prints.


1
2
3
Stop
4
5
6
7
8
9
Proof
C
0
#
Clear
Enter

7 Press the **Enter** key.

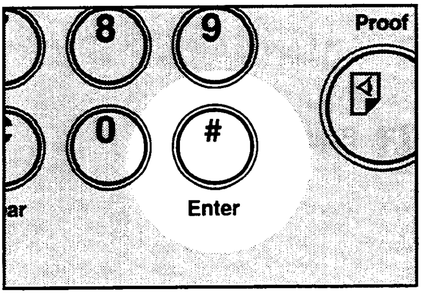

8
9
Proof
0
#
Enter

8 Repeat steps 6 and 7 for all the registered number of sets.

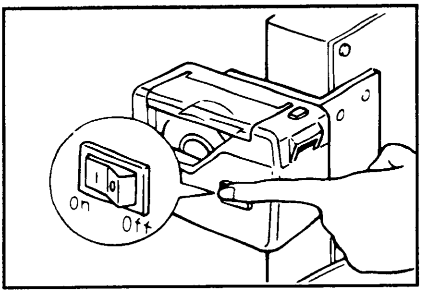
❑ Up to 25 sets can be stored in memory for the number of prints.

9 Press the **Enter** key again. The Memory returns to memory 1.

❑ If you store the number of prints for 25 sets, the memory number returns to 1. It is not necessary to press the **Enter** key.

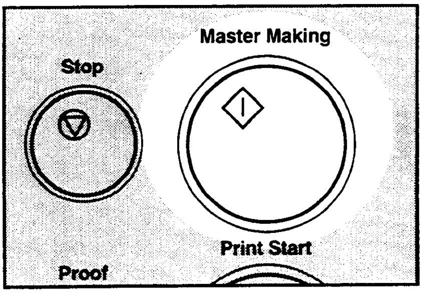


10 Turn on the power switch of the optional tape dispenser.



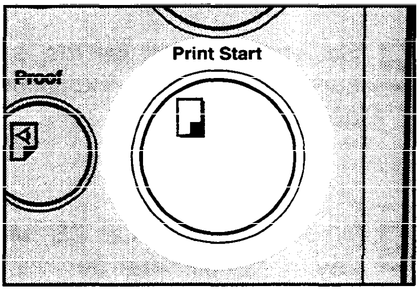
11 Press the **Master Making** key. Check the image position of the trial or proof print.

❑ If the image position is not correct, adjust it using the **Image Position** keys (☛ see page 21) or the side plate fine adjusting dial (☛ see page 22).



12 Make your prints.

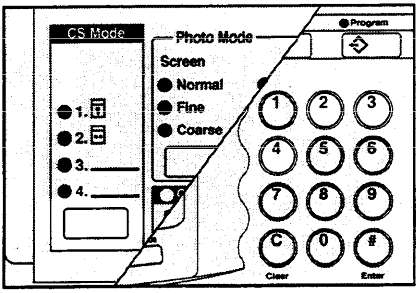
❐ After the first set is fed to the paper delivery table, the tape dispenser drops a strip of paper on the top of the paper stack.



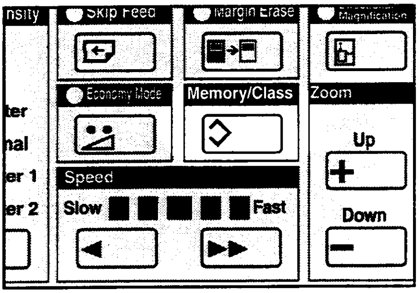
Auto Memory/Class mode

1. Set your original on the exposure glass or in the optional document feeder.

2. While pressing the **CS Mode** key, press the **Number** key you have registered as Auto Memory/Class mode.


CS Mode
1.
2.
3.
4.
Photo Mode
Screen
Normal
Fine
Coarse
Program
1
2
3
4
5
6
7
8
9
C
0
#
Clear
Enter

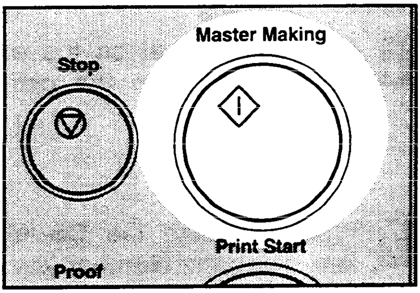
3. Press the **Memory/Class** key to light the Class or Memory indicator.


Skip Feed
Margin Erase
Magnification
Economy Mode
Memory/Class
Zoom
Up
Down
Speed
Slow
Fast

4. When you select Class mode, follow the steps 3 to 5 on page 48.

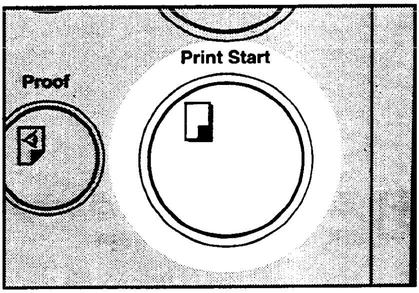
   When you select Memory mode, follow the steps 2 to 7 on pages 50 and 51.

5 Press the **Master Making** key.


Master Making
Stop
Print Start
Proof

6 Make your prints.

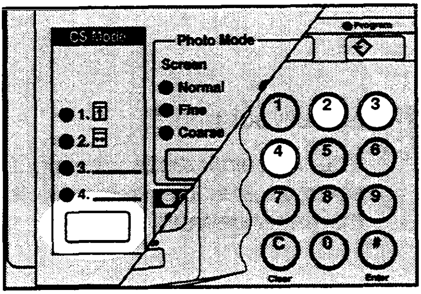
❒ The machine stops printing for 2 seconds after the first set is fed to the paper delivery table.


Print Start
Proof

Tint mode setting

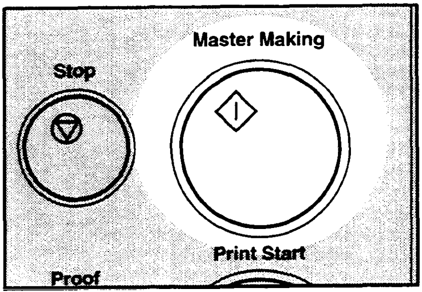
1. Set your original on the exposure glass or in the optional document feeder.

2. While pressing the **CS Mode** key, press the **Number** key you have registered Tint mode.


CS Mode
1.
2.
3.
4.
Photo Mode
Screen
Normal
Fine
Coarse
Program
1
2
3
4
5
6
7
8
9
C
0
#
Clear
Enter

3. Enter the number of prints using the **Number** keys.

4. Press the **Master Making** key.

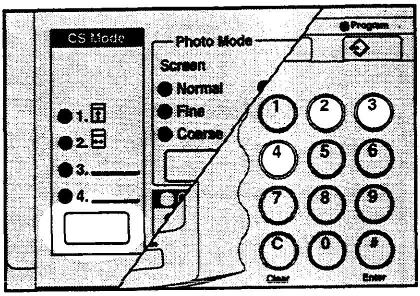

Master Making
Stop
Print Start
Proof

5. Make your prints.

Paper size detection selection

1. Set your original on the exposure glass or in the optional document feeder.

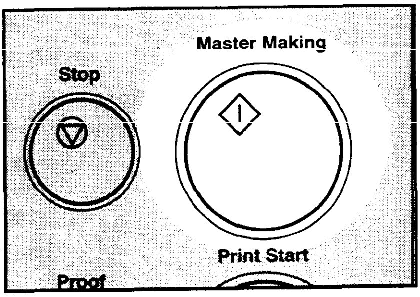
2. While pressing the **CS Mode** key, press the **Number** key you have registered as Paper size detection selection mode.


CS Mode
1.
2.
3.
4.
Photo Mode
Screen
Normal
Fine
Coarse
Program
1
2
3
4
5
6
7
8
9
C
0
#
Clear
Enter

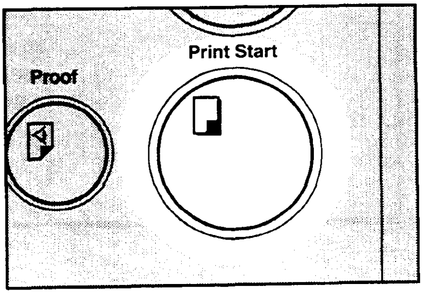
3. Enter the number of prints using the **Number** keys.

4. Press the **Master Making** key. Check the image position of the trial or proof print.

❒ If the image position is not correct, adjust it using the **Image Position** keys (☛ see page 21) or the side plate fine adjusting dial (☛ see page 22).


Master Making
Stop
Print Start
Proof

5. Make your prints.


Print Start
Proof

Service Program Menu

SP No.	Mode	Function
10	Minimum Print Quantity	Specifies the minimum number of prints that can be input with the **Number** keys. ☐ Default: 0 ☐ Adjustment value: 0 to 9999
11	Maximum Print Quantity	Specifies the maximum number of prints that can be input with the **Number** keys. ☐ Default: 0 ☐ Adjustment value: 0 to 9999
12	Fixed Magnification Ratio Adjustment	Adjusts a fixed magnification ratio. metric version: from A4 to A3 inch version: from 51/2" x 81/2" to 81/2" x 14" ☐ Default: metric version: 141 % inch version: 155 % ☐ Adjustment value: 50 to 200 %
13		Adjusts a fixed magnification ratio. metric version: from A4 to B4 inch version: from 81/2" x 11" to 11" x 17" ☐ Default: metric version: 122 % inch version: 129 % ☐ Adjustment value: 50 to 200 %
14		Adjusts a fixed magnification ratio. metric version: from B4 to A3 inch version: from 81/2" x 14" to 11" x 17" ☐ Default: metric version: 115 % inch version: 121 % ☐ Adjustment value: 50 to 200 %
15		Adjusts a fixed magnification ratio. metric version: full size inch version: from 81/2" x 14" to 81/2" x 11" ☐ Default: metric version: 100 % inch version: 77 % ☐ Adjustment value: 50 to 200 %

SP No.	Mode	Function
16	Fixed Magnification Ratio Adjustment	Adjusts the create margin or a fixed magnification ratio. metric version: create margin inch version: from 11" x 15" to 81/2" x 11" ❒ Default: metric version: 93 % inch version: 74 % ❒ Adjustment value: 50 to 200 %
17		Adjusts a fixed magnification ratio. metric version: from A3 to B4 inch version: from 11" x 17" to 81/2" x 11" ❒ Default: metric version: 87 % inch version: 65 % ❒ Adjustment value: 50 to 200 %
18		Adjusts a fixed magnification ratio. from B4 to A4 ❒ Default: 82 % ❒ Adjustment value: 50 to 200 %
19		Adjusts a fixed magnification ratio. from A3 to A4 ❒ Default: 71 % ❒ Adjustment value: 50 to 200 %
20	Beeper	Turns the beeper ON or OFF. ❒ Default: 0 ❒ Adjustment value: 0: No 1: Yes
21	Prints/Master Cost	The optional key counter usually counts the number of copies made regardless of the number of masters used. For accounting purposes, it is possible for the key counter to be incremented by a value between 0 and 50 whenever a new master is used. *Example:* The key counter is adjusted to increase by 20 for each master fed. If 100 copies have been made and the master is replaced, the key counter will increase by 120. ❒ Default: 0 ❒ Adjustment value: 0 to 50

SP No.	Mode	Function
29	Photo Background Correct	When you make prints in Photo or Line/Photo mode, the background of the prints may become dirty. You can prevent this using this function. ☐ Default: 0 ☐ Adjustment value: 0: No 1: Yes
40	Image Mode Default setting	Specifies the image mode at power on. ☐ Default: 0 ☐ Adjustment value: 0: Line mode 1: Line/Photo mode 2: Photo mode
41	Image Density Default setting	Specifies the image density at power on. ☐ Default: 1 ☐ Adjustment value: 0: Light 1: Standard 2: Dark 3: Darker
43	Auto Cycle Mode Default setting	Specifies whether Auto Cycle mode is selected at power on. ☐ Default: 0 ☐ Adjustment value: 0: No 1: Yes
44	Memory/Class Mode Default setting	Specifies Memory or Class mode at power on. ☐ Default: 1 ☐ Adjustment value: 0: Class 1: Memory

SP No.	Mode	Function
46	Make-up Background Pattern Default Setting	This function can be used only when you have the optional Make-up function. Specifies the default make-up mode background pattern that is selected when the **Make-up** key is pressed. ❒ Default: 0 ❒ Adjustment value: 1 to 40, 51 to 90, 101 to 140, 151 to 190 0: No background pattern
50	Directional Magnification Mode Selection	You can select whether you can input the reproduction ratios for each vertical and horizontal directions or you can input each vertical and horizontal lengths of original and print paper. ❒ Default: 0 ❒ Adjustment value: 0: reproduction ratio 1: vertical and horizontal lengths of original and print paper
79	Quality Start setting	If the machine is not used for a long period of time, the image density might decrease because the ink on the drum might dry. Printing quality can be regained by making a few prints. The Quality Start function recovers the image density quality and it prevents you from making extra prints. When you set the Quality Start function to be "Yes", you can also select how many times the Quality Start mode is carried out for each master making. Also, when you set the Quality Start function to be "Yes", the bold letters or solid images may be light. ❒ Default: Quality Start mode: 0 Time: 2 ❒ Adjustment value: Quality Start mode: 0: No 1: Yes Time: 0 to 10 times ❒ If you use the Quality Start function before 6 hours have passed after the last operation, the image density may not be recovered earlier. However, it is convenient to use this function when you change drum unit and make prints before 6 hours have passed after the last operation.

SP No.	Mode	Function
80	Auto Quality Start setting	If the machine is not used for a long period of time, the image density might decrease because the ink on the drum might dry. The Auto Quality Start function automatically recovers image density quality after a selected time has passed, regardless of the number of times the machine is used. You can also select how many times the Quality Start mode is carried out after the following time period has passed. If Auto Quality Start is set to be "No", you can regain print quality by making a few extra prints. ❒ Default: Auto Quality Start mode: 1 0 to 6 hours: 0 6 to 32 hours: 2 32 to 72 hours: 3 ❒ Adjustment value: Auto Quality Start mode 0: No 1: Yes 0 to 6 hours: 0 to 10 times 6 to 32 hours: 0 to 10 times 32 to 72 hours: 0 to 10 times ❒ If you use the Quality Start function before 6 hours have passed after the last operation, the image density may not be recovered earlier. However, it is convenient to use this function when you change drum unit and make prints before 6 hours have passed after the last operation.
82	Skip Feed Number	When you use the Skip Feed Printing function, you can select how many times the drum rotates while one sheet of paper is fed. If you select more than 2 times, you can also select whether you use paper longer than 447 mm, 17.5" or not. ❒ Default: Skip Feed Number: 2 Long sheet: 0 ❒ Adjustment value: Skip Feed Number: 1 to 9 times Long sheet: 0: No 1: Yes

SP No.	Mode	Function
83	Auto Reset Time	Sets the auto reset time. The machine automatically returns to the default settings if no keys are pressed during its time period. This mode can also be turned off. ❐ Default: 0 ❐ Adjustment value: 0: No 1 to 5 minutes
84	Auto Multi Copy mode selection	If you set an original on the exposure glass and press the **Multi-Copy** key and **Master Making** key, two or four identical images are printed on the one sheet. ❐ Default: 0 ❐ Adjustment value: 0: Multi Copy mode 1: Auto Multi Copy mode ❐ For how to make prints in Auto Multi Copy mode, ☛ see page 121. ❐ You cannot set an original in the optional document feeder in Auto Multi Copy mode.
87	Memory Stack mode	In Memory mode, you set several originals each of which a different number of sets can be printed. In Memory Stack mode, you can print several different stacks from one original. ❐ Default: 0 ❐ Adjustment value: 0: Memory mode 1: Memory Stack mode ❐ For how to make prints in Memory Stack mode, ☛ see page 122. ❐ You can use this function when your machine is equipped with the optional tape dispenser. ❐ You cannot set originals in the optional document feeder in Memory Stack mode.

SP No.	Mode	Function
88	Auto Memory/Class mode	In this function, the machine stops printing for 2 seconds after one set of prints are completed in Class or Memory mode. This gives you the chance to separate each set when you do not have an optional tape dispenser. For example, you can remove prints one by one from the paper delivery table or insert one sheet of paper between the prints. ❒ Default: 0 ❒ Adjustment value: 0: Memory/Class mode 1: Auto Memory/Class mode
89	Tint mode setting	Reproduce tint image. ❒ Default: 0 ❒ Adjustment value: 0: No 1: Yes
113	Resettable Total Master/Copy Counter	Used to display the total number of masters and prints. ❒ M: Total number of masters P: Total number of prints
114	Clear Resettable Total Master/Copy Counter	Clears the resettable total master/copy counter. ❒ Default: 0 ❒ Adjustment value: 0: No 1: Yes
120	User Code Mode	Selects user code mode. When you set this function, you have to also specify the auto reset time. For details about user code mode, ☛ see page 139. ❒ Default: User Code mode: 0 Auto Reset time: 0 ❒ Adjustment value: User Code mode: 0: No 1: Yes Auto Reset time: 0: No 1 to 5 minutes

SP No.	Mode	Function
121	User Code Count	Displays the number of masters and copies made in each user code.
122	Clear User Code Count	Clear each user code counter. ☐ Default: 0 ☐ Adjustment value: 0: No 1: Yes
123	Total User Code Count	Displays the total number of masters and copies for all the 20 user codes
124	Clear Total User Code Count	Clears the total user code counter. ☐ Default: 0 ☐ Adjustment value: 0: No 1: Yes
142	Paper size detection selection	The machine determines the print area size according to the reproduction ratio and the size of paper set on the paper feed table. If you are making prints on non-standard paper and the original image does not entirely appear on the print, set paper size detection to off. When you set the paper size detection to off, you can also select whether the paper size indicators are displayed or not. ☐ Default: paper size detection: 1 paper size indicators: 0 ☐ Adjustment value: paper size detection: 0: No 1: Yes paper size indicators: 0: No 1: Yes
143	Original Size Detection	The machine determines the print area size according to the size of the original. If you are making prints using originals of a non-standard size and the image does not entirely appear on the prints, set original detection not work. ☐ Default: 1 ☐ Adjustment value: 0: No 1: Yes

SP No.	Mode	Function
160 ~170	Erase Margins Adjustment Area	Adjust the erase edges area for the following sizes of originals. The adjustment value is (50 ~ 307 mm) x (50 ~ 432 mm).
		SP No. 160: A3 or 11" x 17" ❐ Default: metric version: 289 x 416 mm inch version: 271 x 428 mm
		SP No. 161: B4 or 8 1/2" x 14" ❐ Default: metric version: 249 x 360 mm inch version: 208 x 352 mm
		SP No. 162 A4 or 8 1/2" x 11" ❐ Default: metric version: 202 x 293 mm inch version: 208 x 275 mm
		SP No. 163 A4 or 8 1/2" x 11" ❐ Default: metric version: 289 x 206 mm inch version: 271 x 212 mm
		SP No. 164 B5 or 5 1/2" x 8 1/2" ❐ Default: metric version: 174 x 253 mm inch version: 132 x 212 mm
		SP No. 165 B5 or 5 1/2" x 8 1/2" ❐ Default: metric version: 249 x 178 mm inch version: 208 x 136 mm
		SP No. 166 A5 ▭ ❐ Default: metric version: 140 x 206 mm inch version: 50 x 50 mm
		SP No. 167 metric version: A5 ▯ ❐ Default: 202 x 144 mm
		SP No. 168 metric version: A6 ▭ ❐ Default: 97 x 144 mm
		SP No. 169 metric version: A6 ▯ ❐ Default: 140 x 101 mm
		SP No. 170 smaller than A6 ❐ Default: 92 x 144 mm

User codes

With the user code function, operators must input an authorized code before the machine will operate. The machine keeps rack of the number of prints made under each code. In this mode, the following 20 user codes (fixed) can be used to access the machine.

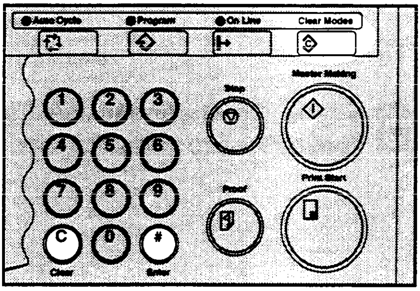
382, 191, 182, 173, 164, 155, 146, 137, 128, 119, 482, 291, 282, 273, 264, 255, 246, 237, 228, 219

❒ To prevent unauthorized users from accessing the machine note down the codes and then black out the codes from this manual.

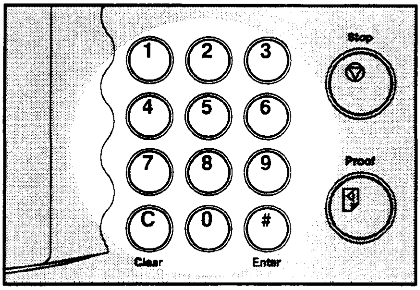
How to enable user code mode (# 120)

The following procedure explains how to enable user code mode. This must be done before a user code can be input.

1 Press the keys on the operation panel in the following order.
(1) **Clear Modes** key
(2) **Clear** key
(3) **Enter** key.


Auto Cycle
Program
On Line
Clear Modes
Master Making
Stop
Print Start
Proof
1
2
3
4
5
6
7
8
9
C
0
#
Clear
Enter

2 Enter "120" using the **Number** keys and press the **Enter** key.


1
2
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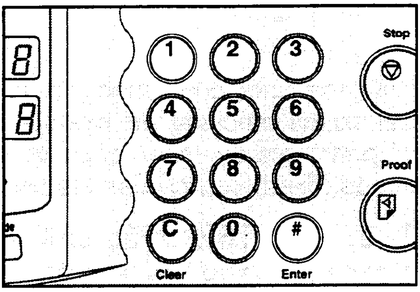
4
5
6
7
8
9
C
0
#
Clear
Enter
Stop
Proof

3 Enter "1" (Yes) using the **Number** key and press the **Enter** key.


1
2
3
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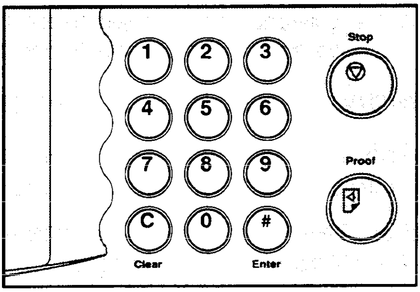
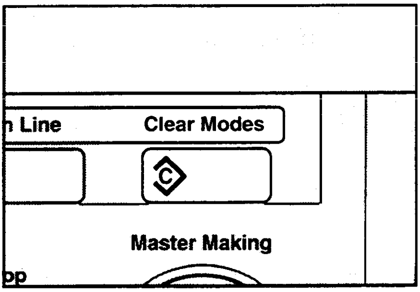
5
6
7
8
9
C
0
#
Clear
Enter
Stop
Proof

4 Specify the Auto Reset time. Enter the desired setting using the **Number** keys and press the **Enter** key.

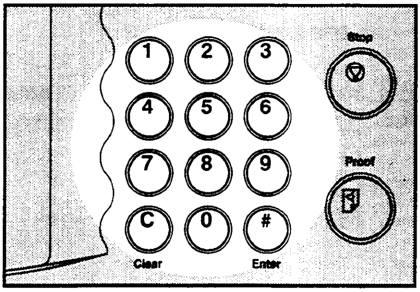

1
2
3
4
5
6
7
8
9
C
0
#
Clear
Enter
Stop
Proof

5 Press the **Clear Modes** key to leave Service Program mode.


Clear Modes
Master Making

How to use user code mode

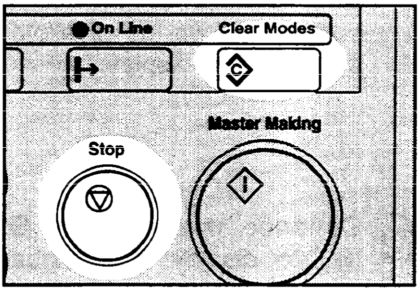
1 Input your assigned 3-digit user code using the **Number** keys, then press the **Enter** key.


1
2
3
4
5
6
7
8
9
C
0
#
Clear
Enter
Stop
Proof

2 Make your prints.

3 After you have finished, press the **Stop** key while pressing the **Clear Modes** key.

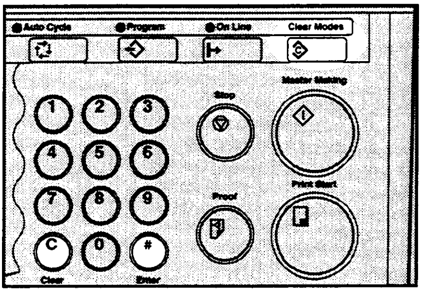
- ☐ This prevents others from using your user code to make prints.
- ☐ If you do not follow this step, the machine will not request the next user for their codes unless the auto reset time has expired.


On Line
Clear Modes
Master Making
Stop

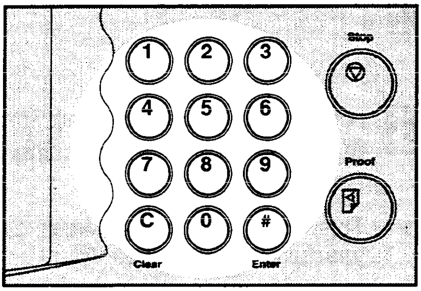
How to check the user code counter (# 121)

❒ If you want to check the total masters and prints made under all user codes, ☛ see page 144.

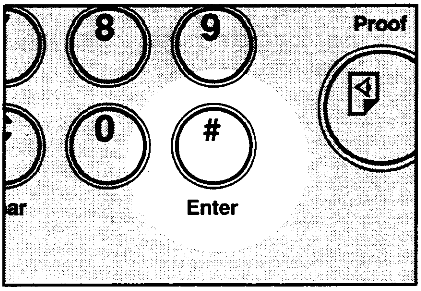
1 Press the keys on the operation panel in the following order:
(1) **Clear Modes** key
(2) **Clear** key
(3) **Enter** key.


Auto Cycle
Program
On Line
Clear Modes
Master Making
Stop
Print Start
Proof
1
2
3
4
5
6
7
8
9
C
0
#
Clear
Enter

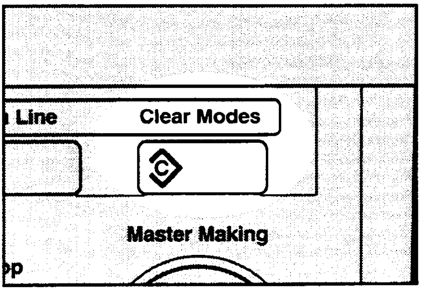
2 Enter "121" using the **Number** keys and press the **Enter** key. The number of masters and prints made under the user code "382" will be displayed in the guidance display.


Stop
1
2
3
4
5
6
7
8
9
C
0
#
Proof
Clear
Enter

3 Continue pressing the **Enter** key to display the number of masters and prints made under your user code.


8
9
Proof
0
#
ar
Enter

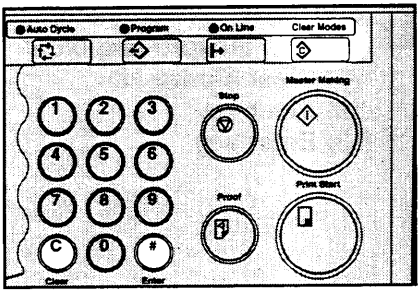
4 Press the **Clear Modes** key to leave Service Program mode.


Line
Clear Modes
Master Making
p

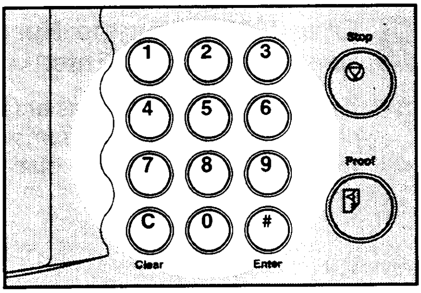
How to clear the user code counter (# 122)

❐ If you want to clear every user code counter, ☛ see page 145.

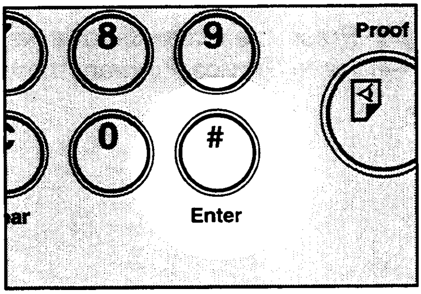
1 Press the keys on the operation panel in the following order:
(1) **Clear Modes** key
(2) **Clear** key
(3) **Enter** key.


Auto Cycle
Program
On Line
Clear Modes
Master Making
Stop
Print Start
Proof
1
2
3
4
5
6
7
8
9
C
0
#
Clear
Enter

2 Enter "122" using the **Number** keys and press the **Enter** key.

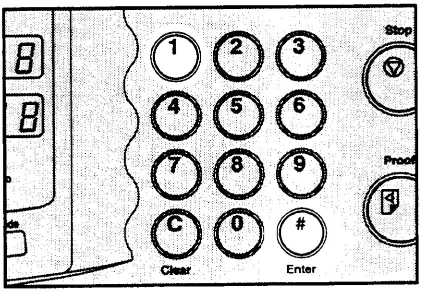

1
2
3
4
5
6
7
8
9
C
0
#
Clear
Enter
Stop
Proof

3 Keep pressing the **Enter** key until desired user code is displayed.


8
9
0
#
Proof
Enter

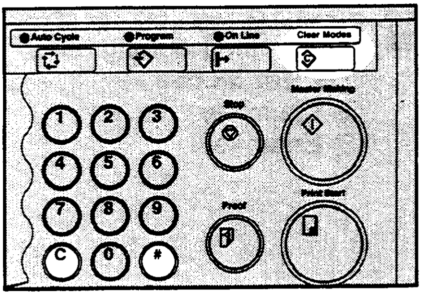
4 Enter "1" using the **Number** key and press the **Enter** key.

5 Press the **Clear Modes** key to leave Service Program mode.


1
2
3
4
5
6
7
8
9
C
0
#
Clear
Enter
Stop
Proof

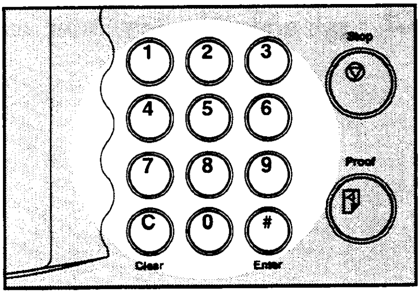
How to check the total number of masters and prints made under all user codes (# 123)

1 Press the keys on the operation panel in the following order:
(1) **Clear Modes** key
(2) **Clear** key
(3) **Enter** key.

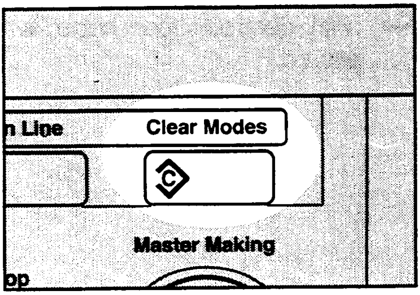

Auto Cycle
Program
On Line
Clear Modes
Master Making
Stop
Proof
Print Start
1
2
3
4
5
6
7
8
9
C
0
#

2 Enter "123" using the **Number** keys and press the **Enter** key.

❑ The total number of masters and prints made under all user codes will be displayed in the guidance display.

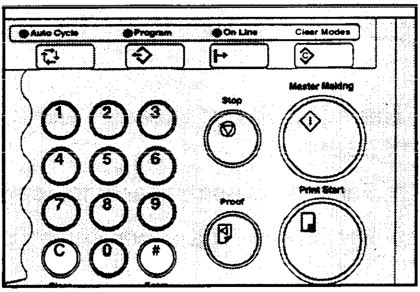

1
2
3
Stop
4
5
6
7
8
9
Proof
C
0
#
Clear
Enter

3 Press the **Clear Modes** key to leave Service Program mode.

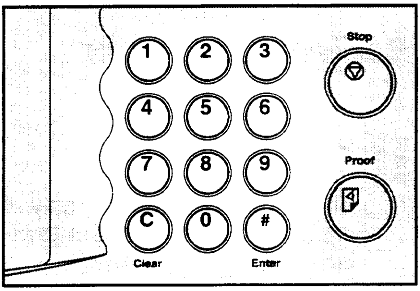

n Line
Clear Modes
Master Making
op

How to clear the user code total counter (# 124)

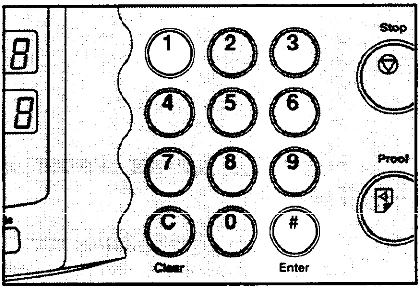
1 Press the keys on the operation panel in the following order:
(1) **Clear Modes** key
(2) **Clear** key
(3) **Enter** key.


Auto Cycle
Program
On Line
Clear Modes
Master Making
Stop
Proof
Print Start
1
2
3
4
5
6
7
8
9
C
0
#

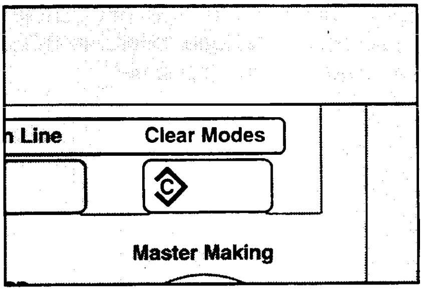
2 Enter "124" using the **Number** keys and press the **Enter** key.


1
2
3
4
5
6
7
8
9
C
0
#
Stop
Proof
Clear
Enter

3 Enter "1" using the **Number** key and press the **Enter** key.


1
2
3
4
5
6
7
8
9
C
0
#
Stop
Proof
Clear
Enter

4 Press the **Clear Modes** key to leave Service Program mode.


Line
Clear Modes
Master Making

REPLENISHING SUPPLIES

Loading Paper On The Paper Feed Table

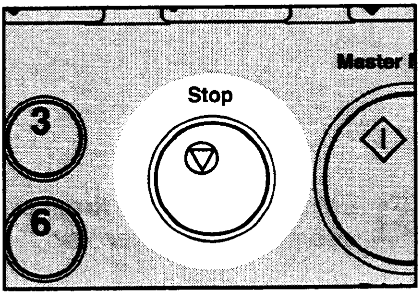
The Load Paper indicator (⏏) blinks when the paper feed table runs out of paper.

- ❒ For how to load paper in the optional large capacity tray, ☛ see page 95.
- ❒ For how to load paper in the optional paper cassette for LCT, ☛ see page 101.

Replenishing paper

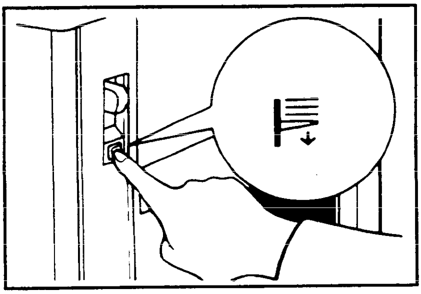
1 Press the **Stop** key.

- ❒ This step is necessary only if you want to pause a print run to replenish paper.



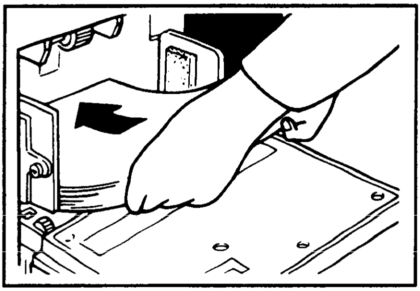
2 Press the **Lower Paper Feed Table** key.

- ❒ The paper feed table will lower without the key being pressed when the printing paper runs out.
- ❒ The top sheet might remain between the feed rollers. In this case, remove the top sheet.

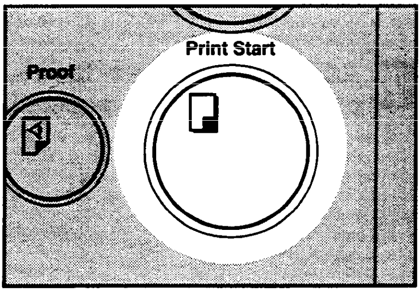


3 Load paper on the paper feed table.

- ❐ Release the pads of the feed side plates before loading paper. Reset the pads after paper is set.
- ❐ Correct paper curl before setting the paper.



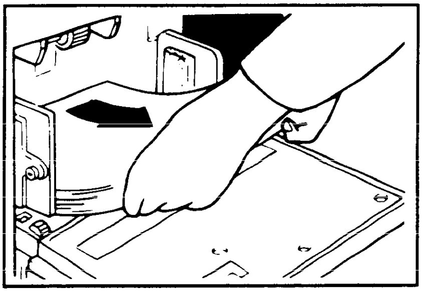
4 Press the **Print Start** key to resume printing.



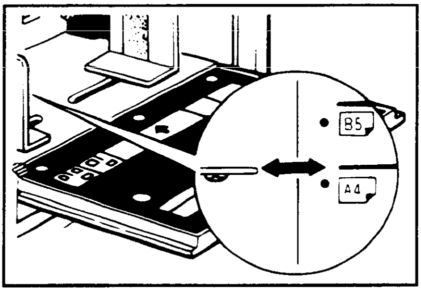
Changing the paper size

1 Remove the paper from the paper feed table.

- The paper feed tray will lower.

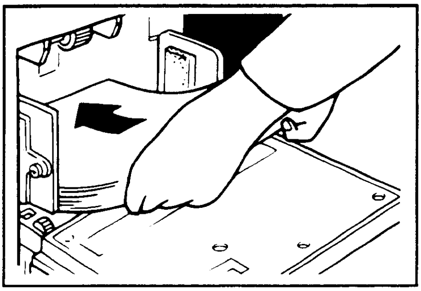


2 Adjust the paper feed side plates to match the paper size.

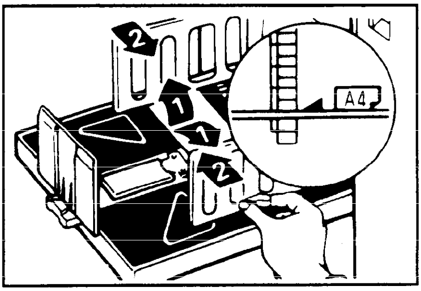


3 Place the paper on the paper feed table.

- Correct any paper curl before setting the paper.
- Make sure that the side plates contact the paper lightly.



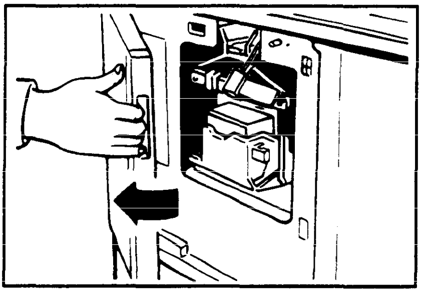
4 Adjust the side plates and the end plate and if necessary, the small size end plate at paper delivery table.



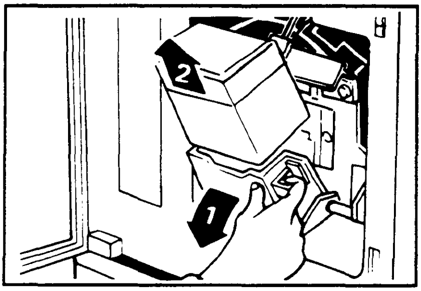
Supplying Ink

The Add Ink indicator (⍗) and the Reset indicator blink when it is time to supply ink.

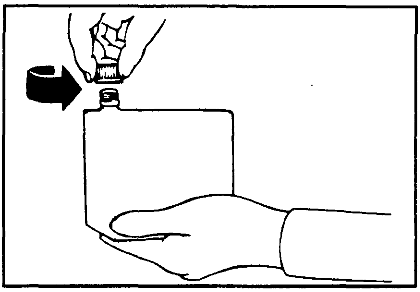
1 Open the front door.



2 Lower the ink holder and remove the used ink cartridge.



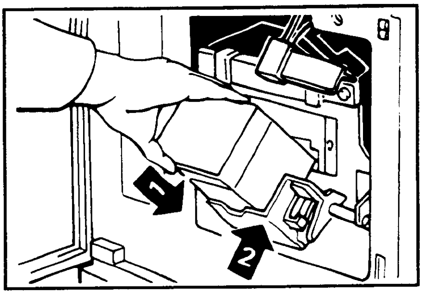
3 Remove the cap of the new ink cartridge.

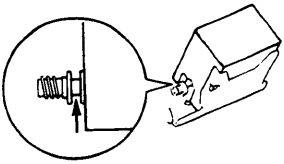


4 Insert the new cartridge into the ink holder. Return the ink holder to its original position until it clicks.

❑ Always supply ink of the same color.

❑ Make sure to firmly insert the part indicated by the arrow mark into the guide.

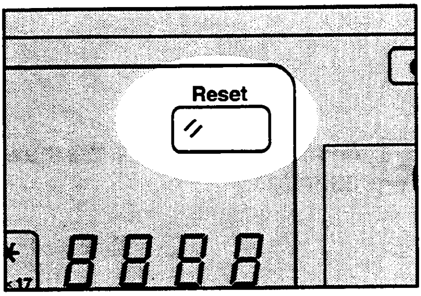




5 Close the front door.

6 Press the **Reset** key.

❑ The machine will start idling to supply ink to the drum. It will stop when the correct amount of ink reaches the drum.

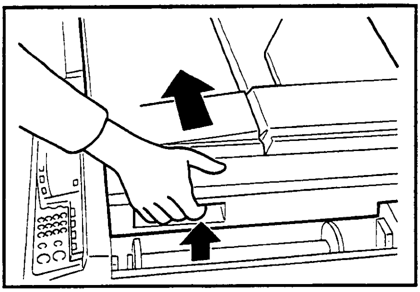


Master Roll Replacement

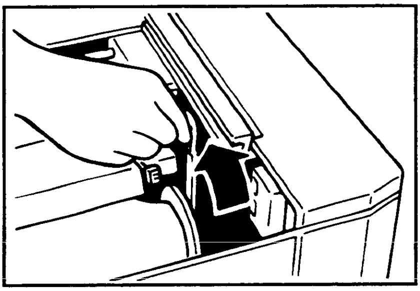
The Master End indicator (⬇) blinks when it is time to replace the master roll.

1 Open the original table.

- Lift the original table release lever and slide the original table all the way to the left.

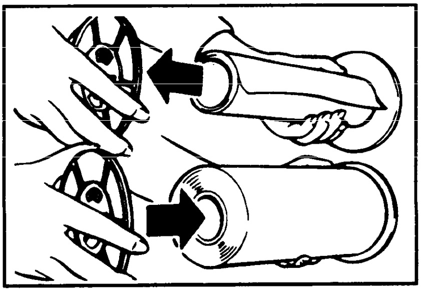


2 Lift the pressure release lever in the direction of the arrow to release the feed roller pressure.

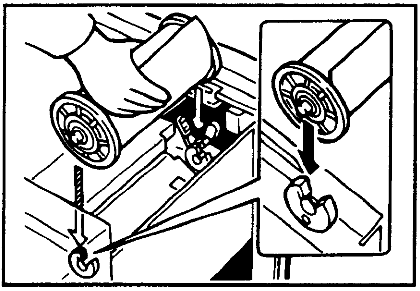


3 Remove the used master roll and pull out both spools. Then, insert both spools into a new master roll.

- When the Master End indicator lights, it is necessary to replace the master roll even if some master remains on the old roll.



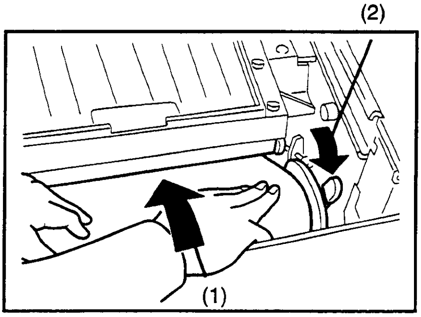
4 The new master roll must be positioned as shown in the illustration.



5 Insert the paper edge of the master roll under the arrow mark (1) until you can see the leading edge under the transparent cover.

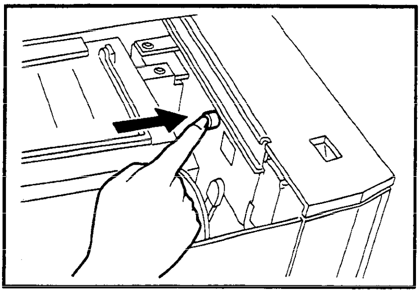
6 Return the pressure release lever to its original position (2).

- ❑ Rotate the spools backward to take up any slack in the master.



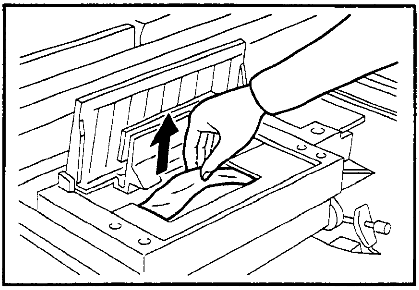
7 Press the master cut button to cut the leading edge of the master roll.

⚠**Caution:** **When the master cut button is pressed, the master roll will rotate. Do not touch the master roll.**



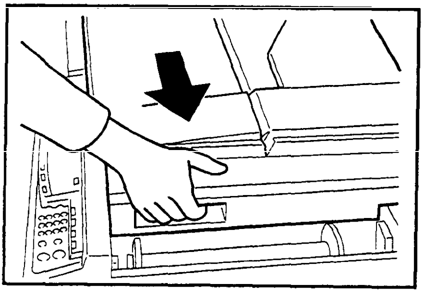
8 After the beeper sounds, open the transparent cover and remove the cut-off portion of the master roll.

- ❑ Remove the cut-off master completely to prevent master misfeed.



9 Return the original table to its original position.

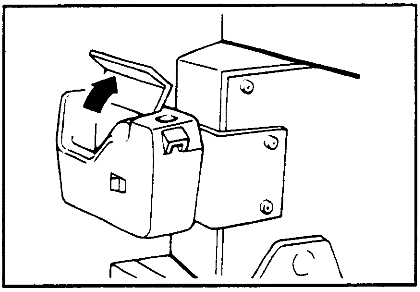
- ❐ Slide the original table to the right until it stops.



Placing A New Roll Of Tape In The Tape Dispenser (Option)

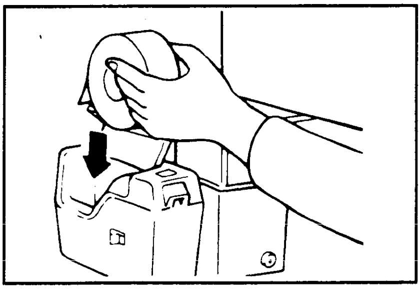
❒ Make sure that the main switch is turned on and the tape power switch is off.

1 Open the cover of the tape dispenser.



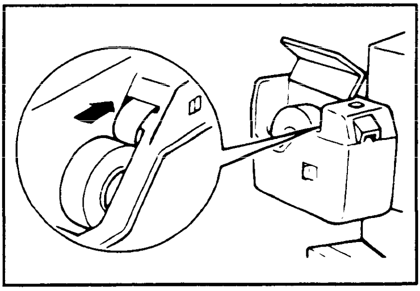
2 As shown, put the roll in the dispenser.

❒ Make sure that the tape is installed in the proper direction. If it is not in the correct direction, the tape dispenser will not work correctly.

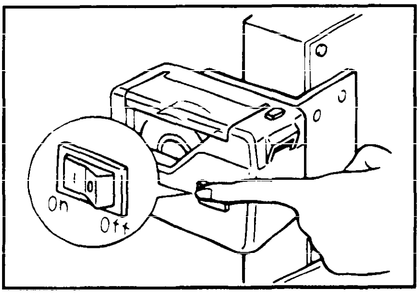


3 Feed the leading edge of the roll in the dispensing slot until it stops.

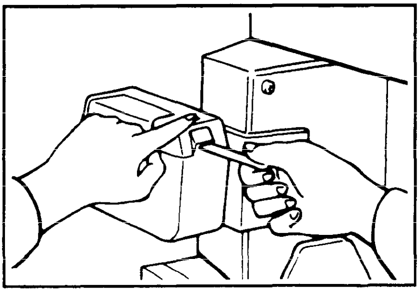
❒ Push the tape as far as possible through the slot.



4 Turn on the power switch of the tape dispenser.



5 Press the manual cut button to trim off the leading edge of the tape.



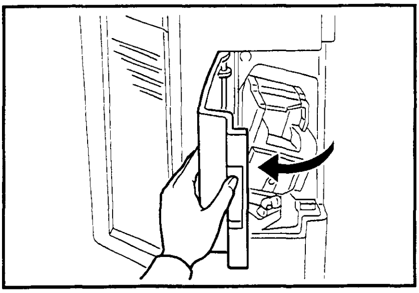
Adding Staples

The Staple (⬇) and "H" indicators blink when the optional sorter stapler runs out of staples. When your machine is equipped with the 2 sorter staplers, A or B is indicated at the end of second line of the guidance display. If A is indicated, the sorter stapler next to the main frame has run out of staples.

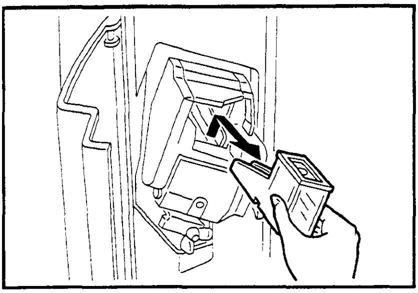
⚠*Caution: Do not remove the staple cartridge from the stapler except for adding staples.*

❒ Do not remove staple plate. It should remain in the stapler unit when you remove the empty staple cartridge.

1 Open the stapler unit cover.

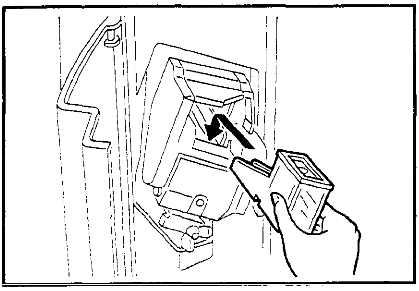


2 Lift the empty staple cartridge a little and remove it from the stapler unit.

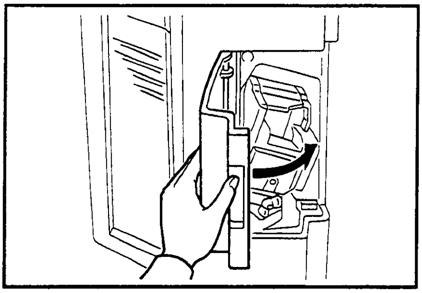


3 Set the new staple cartridge and push it until it clicks.

❒ If any staples extend from the mouth of the new staple cartridge, push them back into the cartridge.



4 Close the stapler unit cover.



5 After changing the staple cartridge, make sure that you can staple documents using the bypass feed stapling (☛ see page 89). When you cannot staple documents even if you try 4 or 5 times, follow the steps below.

❶ Reset the staple cartridge. Then, retry stapling.

❷ If the stapler unit does not work properly, a staple misfeed may occur. Remove misfed staples. ☛ See page 192.

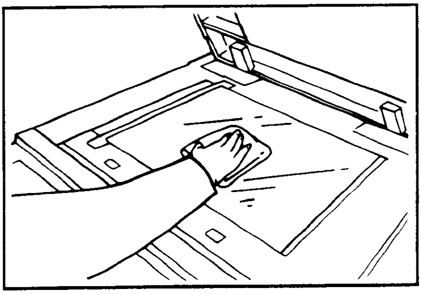
DAILY MAINTENANCE

To maintain high print quality, clean the following parts and units regularly.

Exposure Glass

Clean the exposure glass with a damp cloth and wipe it with a dry cloth.

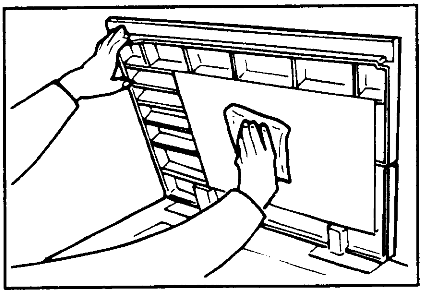
❐ If you do not clean the exposure glass, marks on the glass will be printed.



Platen Cover

Clean the platen cover with a damp cloth and wipe it with a dry cloth.

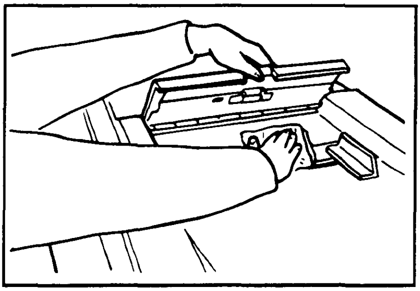
❐ If you do not clean the platen cover, marks on the cover will be printed.



Separation Roller (Optional Document Feeder)

Clean the separation roller with a damp cloth and wipe it with a dry cloth.

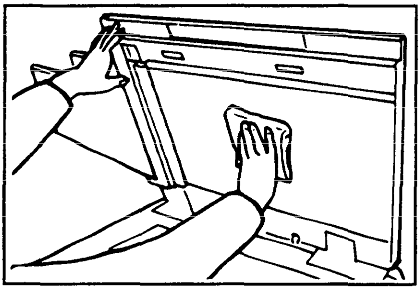
❒ If you do not clean the separation roller, original misfeeds tend to occur.



Sheet (Optional Document Feeder)

Clean the sheet with a damp cloth and wipe it with a dry cloth.

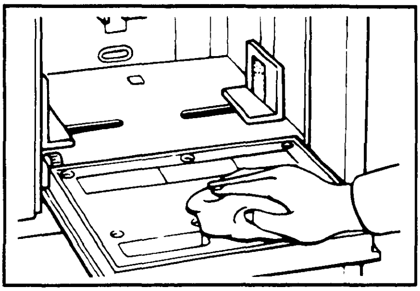
❒ If you do not clean the sheet, marks on the sheet will be printed.



Paper Size Detection Sensors (Paper Feed Table)

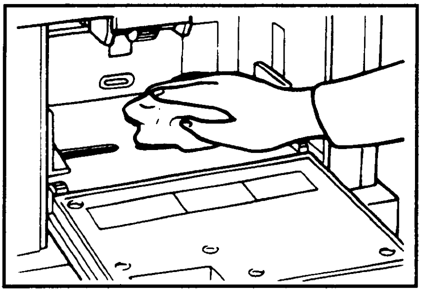
Wipe off the paper dust on the paper size detection sensors with a dry cloth.

❒ If you do not clean the paper size detection sensors, parts of the image will not be printed.



Paper End Sensor (Paper Feed Table)

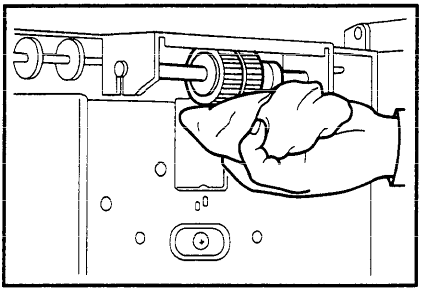
Wipe off the paper dust on the paper end sensor with a dry cloth.



❒ If you do not clean the paper end sensor, the Load Paper indicator might not light when paper runs out.

Paper Feed Roller (Paper Feed Table)

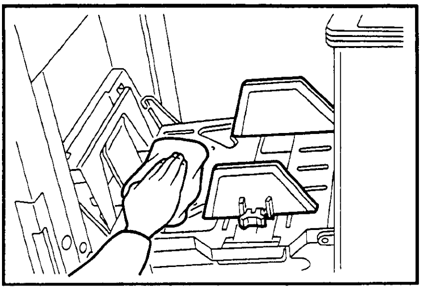
Wipe off the paper dust on the paper feed roller with a damp cloth, then wipe it with a dry cloth.



❒ If you do not clean the paper feed roller, paper misfeeds tend to occur.

Non-sort Tray (Optional Sorter Stapler)

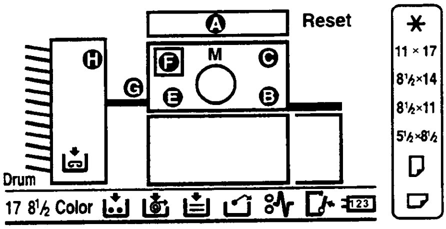
Clean the non-sort tray with a damp cloth and wipe it with a dry cloth.



TROUBLESHOOTING

If a malfunction or a misfeed occurs within the machine, the following indicators will blink or light.

Monitor



When the misfeed indicator (⚠) blinks

Monitor	Guidance Display	Page
⚠ + A + Reset	ORIGINAL JAM REMOVE ORIGINAL	169
⚠ + B + Reset	PAPER FEED JAM REMOVE JAMMED PAPER	171
⚠ + C + Reset	MASTER FEED JAM REMOVE JAMMED MASTER	177
⚠ + E + Reset	PAPER WRAP JAM REMOVE JAMMED PAPER	179
⚠ + E + B + Reset	PAPER WRAP JAM REMOVE JAMMED PAPER	182
⚠ + F + Reset	MASTER EJECT JAM REMOVE JAMMED MASTER	185
⚠ + G + Reset	DELIVERY JAM REMOVE JAMMED PAPER	187
⚠ + H + Reset	SORTER JAM REMOVE JAM PAPER	188

⚠ *Warning:* ***Be careful not to cut yourself on any sharp edges when you reach inside the machine to remove misfed sheets of paper or masters.***

⚠ *Caution: Remaining bits of misfed paper or masters will cause more misfeeds and may eventually cause a serious failure. If you tear the paper when removing it, make sure to remove all the torn pieces.*

⚠ *Caution: Do not turn off the main switch while removing the misfed items.*

When the open cover/unit indicator (☐/•) blinks

Monitor	Guidance Display and Action	Page
☐/•	CLOSE THE COVER ➠ Close the original table unit. ➠ Close the front door. ➠ Close the master eject unit.	189
	CLOSE THE ADF COVER	190
	CLOSE COVER OF LARGE CAPACITY TRAY	
	SET THE DRUM COMPLETELY	
	OPEN THE PAPER FEED TABLE	191
	OPEN THE PAPER DELIVERY TABLE	
☐/• + H	CLOSE THE SORTER PAPER DELIVERY COVER ➠ Close the non-sort tray.	192
	CLOSE THE SORTER STAPLE COVER	
	CHECK NON-SORT TRAY ➠ Remove obstacles from the non-sort tray.	

When the supply/exchange indicators blink

Monitor	Guidance Display and Action	Page
📥	LOAD MORE PAPER	146
📥 + Reset	LOAD NEW INK CARTRIDGE	149
📥	LOAD NEW MASTER ROLL	151
☐ + Reset	EMPTY MASTER EJECT BOX ➡ Remove the used master.	193
	SET THE MASTER EJECT BOX	
📥 + H	REPLENISH STAPLE CARTRIDGE	156

When other indicators blink

Monitor	Guidance Display and Action	Page
M	MASTER NOT WRAPPED ➡ Set the original on the exposure glass or in the optional document feeder. Then, press the **Master Making** key.	
123	SET THE KEY COUNTER	
◐	The optional color drum unit is set.	
A	ORIGINAL IN ADF CLOSE PLATEN COVER ➡ Originals are set in the optional document feeder with the document feeder open. Close the document feeder completely.	
A3	A3 drum unit is set.	
A4	A4 drum unit is set.	
H + Reset	STAPLE JAM ➡ Remove misfed staples.	196
	SORTER OVER-LOADING REMOVE PAPER ➡ Sheets of paper over the maximum capacity of bins (☛ see page 79 or 80) have been delivered to the bins. Remove paper from the bins.	

Monitor	Guidance Display and Action
H	TURN SORTER ON COMMUNICATION ERROR ➠ The power cord of the sorter stapler may not be plugged in. Plug it in firmly. ➠ Connection between the machine and the sorter stapler is wrong. Contact your service representative.
	PAPER LEFT ON SORTER REMOVE PAPER ➠ Paper remains on the bins. Remove paper from the bins.
	STAPLE NOT AVAILABLE DIFFERENT PAPER SIZE ➠ You cannot staple different sized paper when you use Auto Staple or Manual Staple mode. Make prints on the same sized paper or staple prints using Bypass Feed Staple function.
	STAPLE NOT AVAILABLE OVER-LOADED/FLOWING ➠ Sheets of paper over the maximum staple capacity of bins (☛ see page 84 or 85) have been delivered to the bins. Reduce the number of prints. If you still want to staple prints, use the Bypass Feed Stapling.
	STAPLE NOT AVAILABLE CHECK PAPER SIZE ➠ When use paper other than the designated paper size, you cannot use Auto Staple or Manual Staple mode. Use the proper paper size described on page 84 or 85.

When one of the following messages is displayed on the guidance display:

Guidance Display	
RE-ENTER COPY NUMBER MAXIMUM IS XXXX	The maximum number of prints that can be entered is specified by the Service Program mode. Change the number of prints.
RE-ENTER COPY NUMBER MINIMUM IS XXXX	The minimum number of prints that can be entered is specified by the Service Program mode. Change the number of prints.
200% MAXIMUM ENLARGEMENT	The maximum enlargement ratio that can be entered is 200%. If the entered reproduction ratio is over 200%, 200% will be selected.
50% MINIMUM REDUCTION	The minimum reduction ratio that can be entered is 50%. If the entered reduction ratio is under 50%, 50% will be selected.
SET COMMAND SHEETS SET THE ORIGINALS	Make prints after you confirm whether there is an original or a command sheet on the exposure glass.

INPUT YOUR ID CODE	User Code mode is set. Before printing, enter your user code.
SET LOWEST SPEED	When you use the Sort, Staple Sort or Class Sort function, the printing speed setting should be Setting 1.
NO ADDITIONAL PRINTS ALLOWED	Security mode is set. If you make the next master, Security mode is canceled.
CHECK PAPER SIZE	You can resume your operation, but the entire image might not appear completely (paper size too small). Change the paper size to match the print area. When you use paper larger than A4 with the A4 drum unit, this message is displayed. You can make prints if you press the **Master Making** key again.

When a service code (E-XX) is displayed in the guidance display

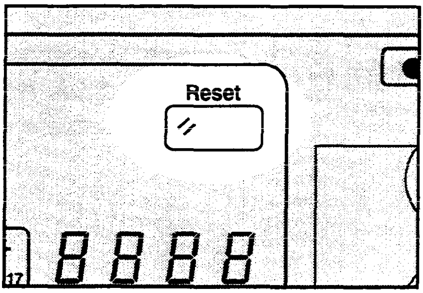
Turn the main switch off and on. If a service code appears again, contact your service representative.

⚠Caution: *If a service code appears on the guidance display after you turn the main switch off and on a few times, do not continue turning it on and off. Leave the machine off.*

When The Misfeed Indicator (⁸⁄) Blinks

After clearing misfeeds

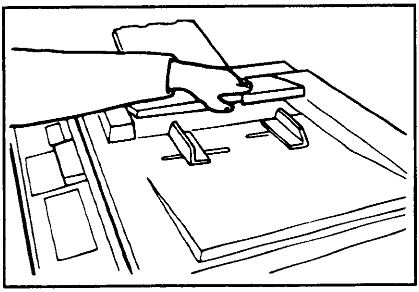
Press the **Reset** key to reset the error indicators.



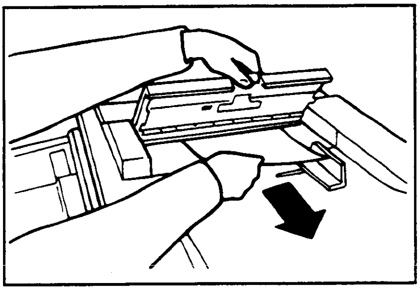
❐ Do not turn off the main switch when removing misfeeds.

" + A" Original misfeed occurs when using the optional document feeder

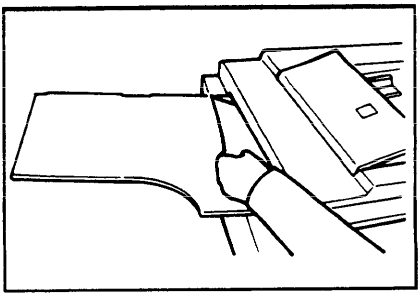
1. Press the ADF unit open lever and open the ADF unit.



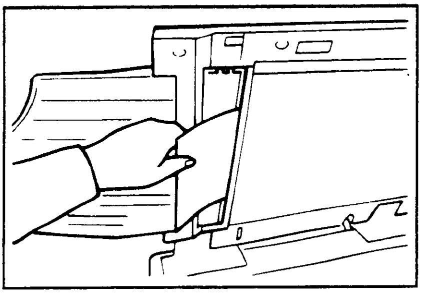
2. Pull out the original gently.



3. If you cannot remove the misfed original, pull out the original from the side of the original tray and remove the original.



4 If you still cannot remove the misfed paper, open the document feeder and remove the original.



5 Close the ADF unit until it locks in position.

To prevent original misfeeds:

☐ Set the following kinds of originals on the exposure glass.
  - Originals heavier than 127.9 g/m^2, 34 lb
  - Originals lighter than 40.7 g/m^2, 10.8 lb
  - Carbon coated originals
  - Damaged originals
  - Originals with glue on them
  - Originals perforated for ring binders
  - Folded, curled, or creased originals
  - Bound, stapled, or clipped originals
  - Originals larger than 307 mm x 432 mm, 12.0" x 17.0"
  - Originals smaller than 90 mm x 140 mm, 3.6" x 5.6"

☐ Do not mix different sizes of originals in the optional document feeder.

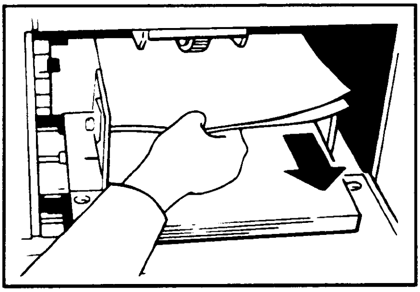
☐ Clean the separation roller if it is dirty. (A dirty separation roller may slip and cause original misfeeds.)

☐ Remove staples or clips of originals. Fan originals that have had staples or clips removed.

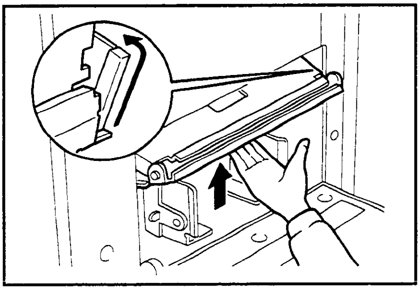
"ᵒᵒ↯ + B" Paper misfeed in the paper feed section

When you load paper on the paper feed table:

1 Remove the misfed paper.

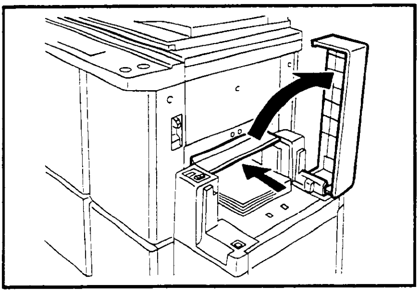


2 Push the paper feed plate down and up.

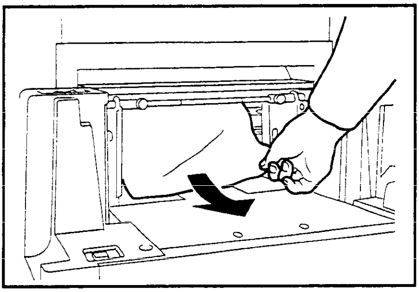


When you load paper in the optional large capacity tray:

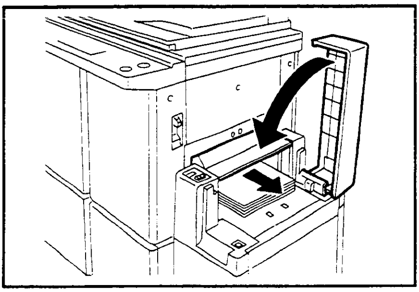
1. Open the LCT cover and push the slide cover in.



2. Remove misfed paper.

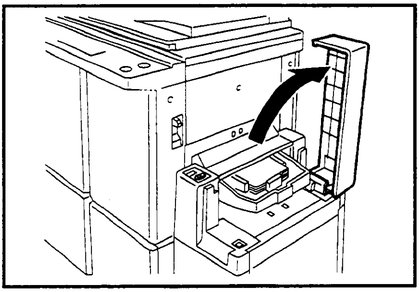


3. Close the LCT cover and the slide cover.

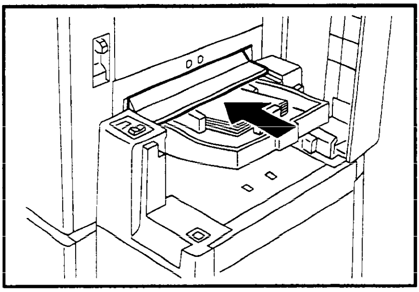


When you load paper in the paper cassette for LCT:

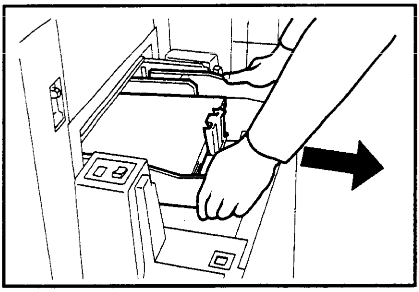
1. Open the LCT cover.



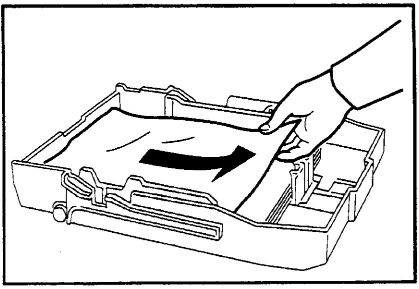
2. Push the slide cover in.



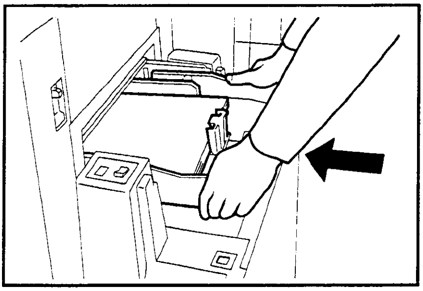
3. Remove the cassette from the large capacity tray.



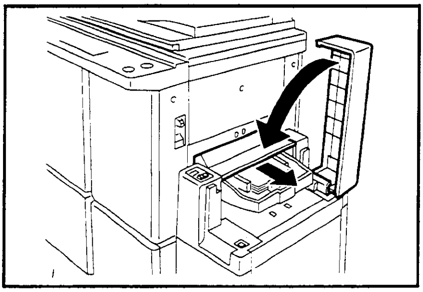
4. Remove misfed paper.



5 Push the cassette forward until it stops.

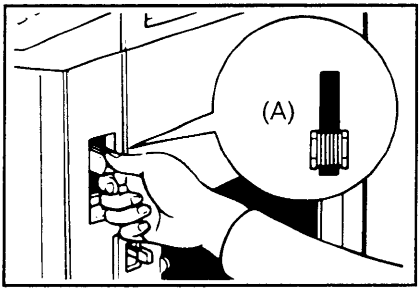


6 Close the slide cover and the LCT cover.



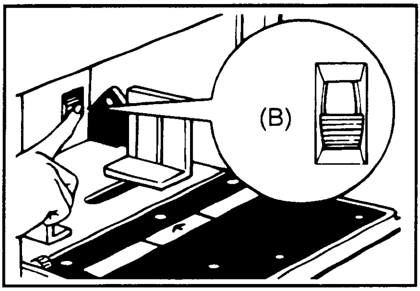
Check the following adjustments before restarting the printing run.

1 Is the paper feed pressure properly adjusted?



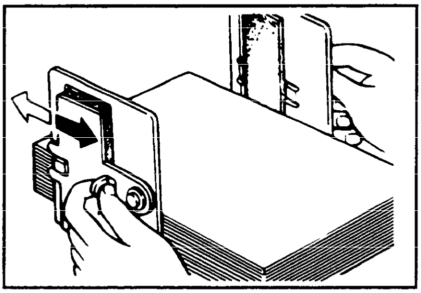
- ☐ The standard position of the pressure lever is up. If you print on thick paper (127.9 to 209.3 g/m^2, 34.0 to 55.6 lb), push the lever down.

2 Is the separation roller pressure properly adjusted?



- ☐ The standard position of the separation pressure levers is the lower position. If dog-eared or wrinkled prints are delivered, push the levers up.

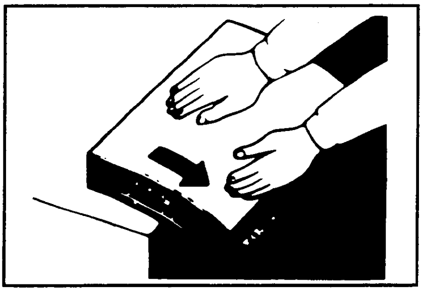
3 Are the side plate pads in the correct positions?



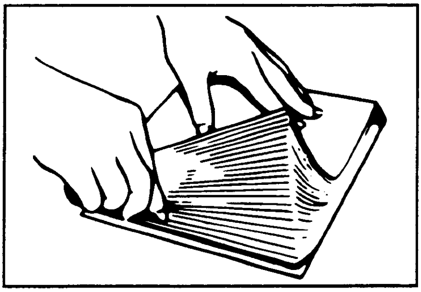
- ☐ To print on thin paper (47.1 to 52.3 g/m^2, 12.5 to 13.9 lb), slide the levers (behind the paper feed side plates) in the direction of the arrow (see illustration).

To prevent paper feed misfeeds:

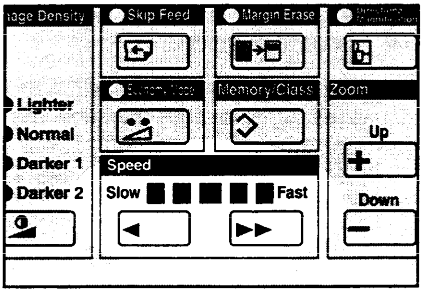
When paper is curled, correct the curl as shown.



When paper edges stick together, shuffle the paper as shown.



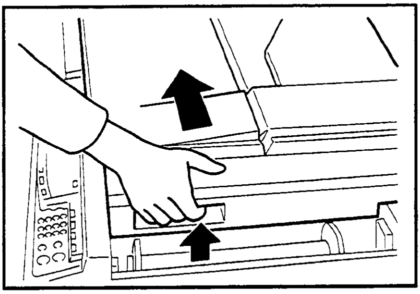
When you use post cards and thick paper, lower the printing speed to step 2 or 1. (☛ See page 24.)


age Density
Skip Feed
Margin Erase
Memory/Class
Zoom
Lighter
Normal
Darker 1
Darker 2
Speed
Slow
Fast
Up
Down

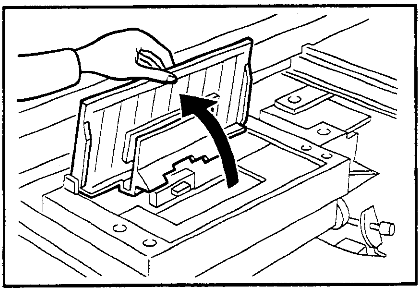
"⚡ + C" Master misfeed in the master feed section

1 Open the original table.

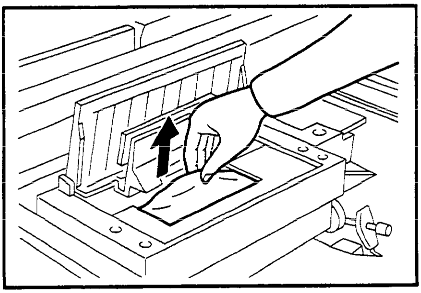
☐ Lift the original table release lever and slide the original table all the way to the left.



2 Open the transparent cover.

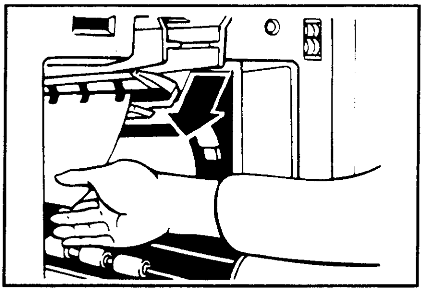


3 Pull the misfed master up and remove it.

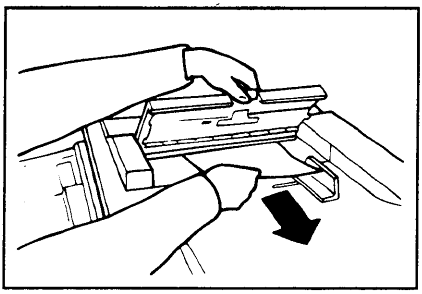


4 If you could not remove the misfed master in steps 2 and 3, take out the drum and remove the misfed master from the inside.

❐ For how to take out the drum unit, ☛ see page 108.



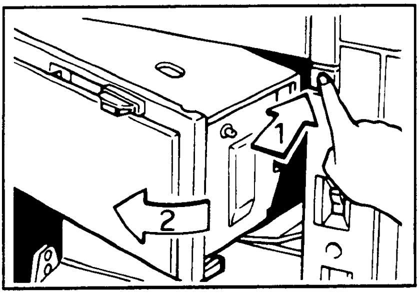
5 If the original misfeeds in the optional document feeder, press the ADF open lever and open the ADF unit to remove the misfed sheet.



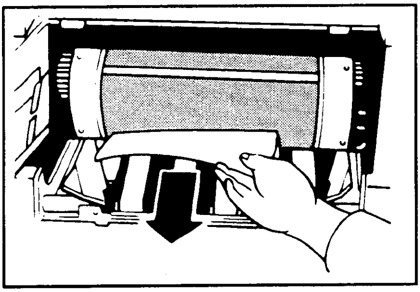
6 Return the original table to its original position.
If you follow step 4, set the drum unit and close the front door.
If you follow step 5, close the ADF unit.

"⚡ + E" Paper wrapped around the drum

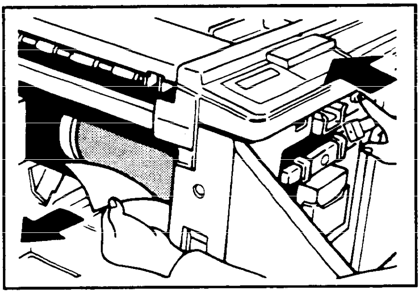
1 Push the master eject unit open button and open the master eject unit.



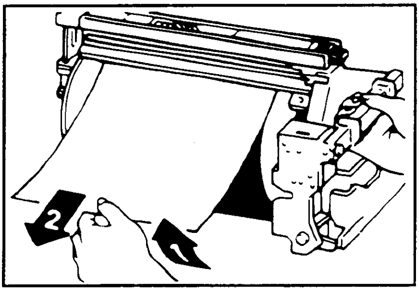
2 Remove the misfed paper.



3 If the paper is completely wrapped around the drum, peel off the edge of the paper. Then, close the master eject unit and press the drum rotation button until the lamp turns green again. And then, open the master eject unit and remove the misfed paper.



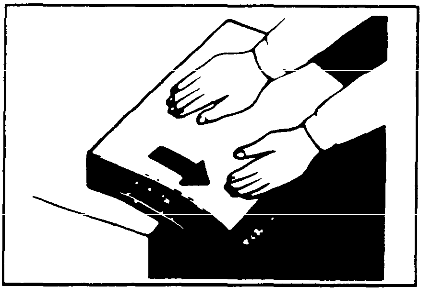
4 If you cannot remove the misfed paper, pull out the drum unit after confirming that the lamp is green, and remove the misfed paper from the drum.



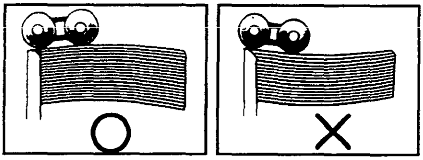
5 Close the master eject unit. If you followed step 3 or 4, close the front door.

If the paper is curled or the original's leading edge margin is too narrow, the following action is necessary.

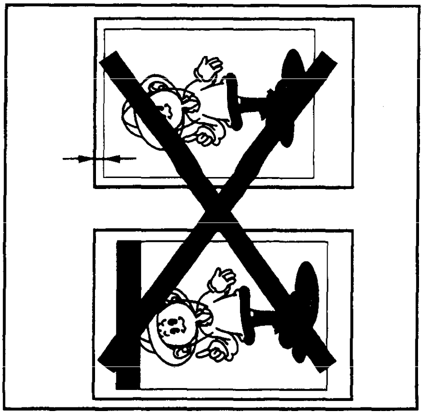
When you use curled paper, correct the curl as shown.



If you cannot correct the paper curl, stack the paper with the curl face down as shown.



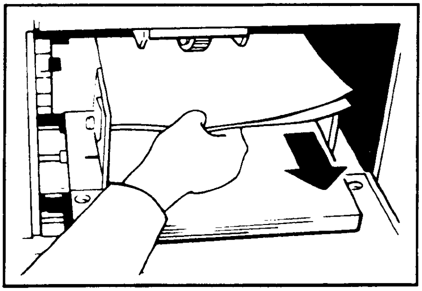
When the leading edge margin of the original is less than 5 mm, 0.2" or there is a solid image on the leading edge, insert the original with the widest margin first or make a leading edge margin by making a copy.



"⚡ + E + B" Misfeed in the paper feed section Paper wrapped around the drum

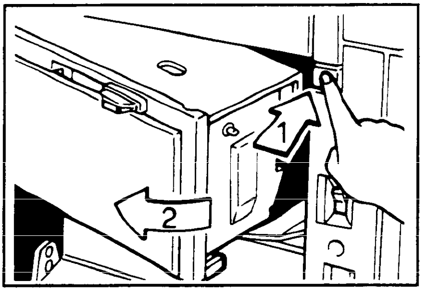
Misfeed in the paper feed section

1. Slowly but firmly pull out the paper.

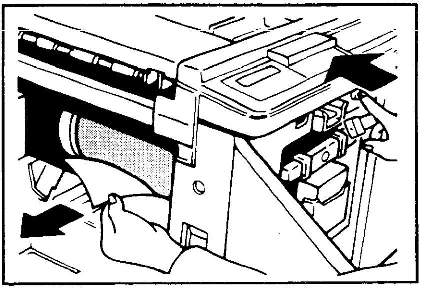


Paper is wrapped around the drum

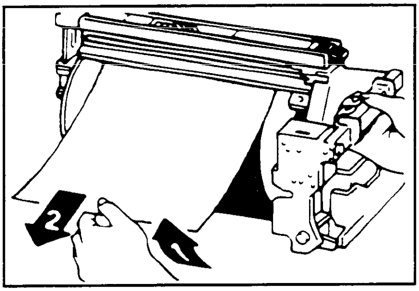
1. Push the master eject unit open button and open the master eject unit.
2. Remove the misfed paper.



3. If the paper is completely wrapped around the drum, peel off the edge of the paper. Then, close the master eject unit and press the drum rotation button until the lamp turns green again. And then, open the master eject unit and remove the misfed paper.



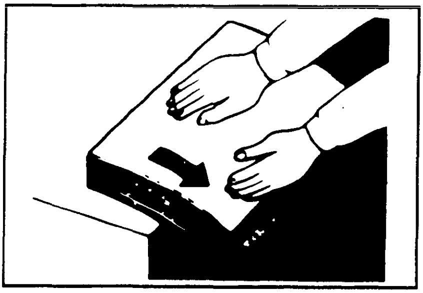
4 If you cannot remove the misfed paper, pull out the drum unit after confirming the lamp is green, and remove the misfed paper from the drum.



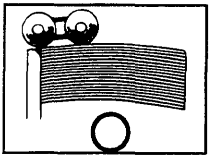
5 Close the master eject unit. If you followed step 3 or 4, close the front door.

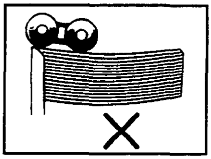
If the paper is curled or the originals leading edge margin is too narrow, the following action is necessary.

When you use curled paper, correct the curl as shown.

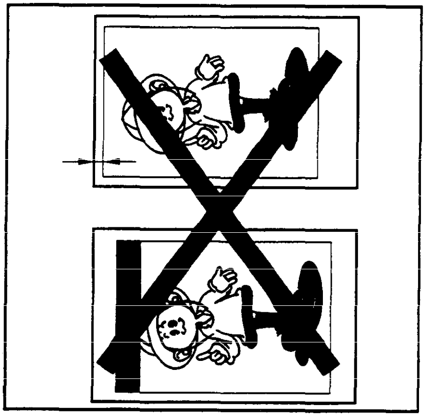


If you cannot correct the paper curl, stack the paper with the curl face down as shown.





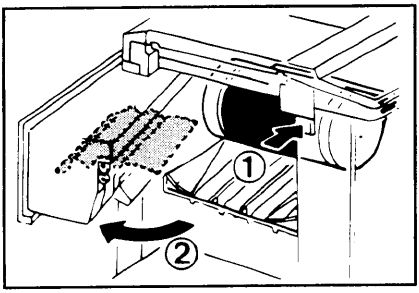
When the leading edge margin of the original is less than 5 mm, 0.2" or there is a solid image on the leading edge, insert the original with the widest margin first or make a leading edge margin by making a copy.



"↯ + F" Master misfeed in the master eject section Master wrapped around the drum

Check where the misfeed is occurring

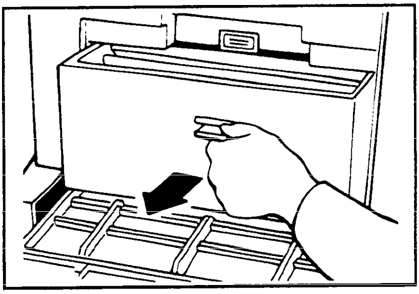
1. Press the master eject unit open button and open the master eject unit.



2. Check where the misfed master is. Remove the misfed master as follows.

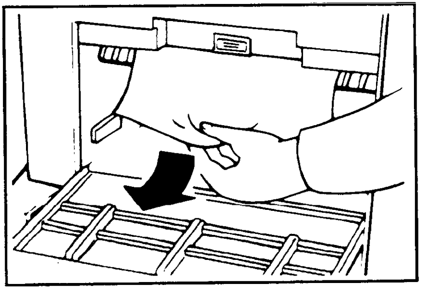
When a master misfeed occurs in the master eject section

1. Open the master eject container cover. Then, pull out the master eject box.



2. Remove the misfed master.

   ☐ Be careful not to stain your hands with ink when you touch used masters.

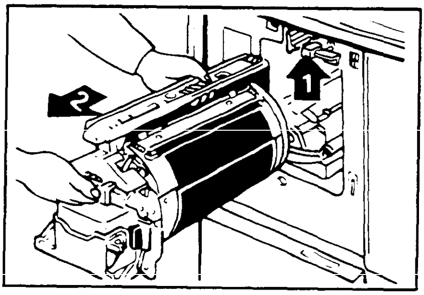


3. Return the master eject box to its original position and close the master eject container cover.

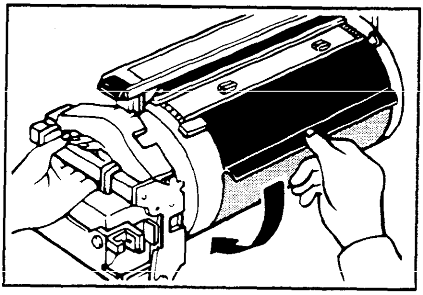
When a master misfeed occurs on the drum

1. Lift the lever to unlock the drum unit and pull out the unit.

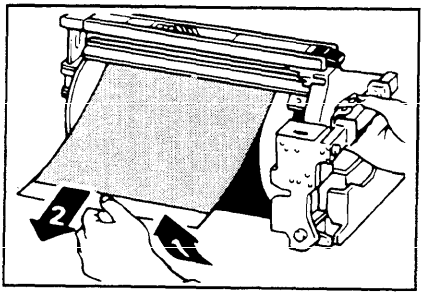
- For how to remove the drum unit, ☛ see page 108.



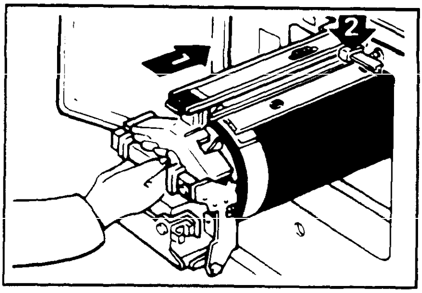
2. Grasp the drum unit handle and remove the master from the drum.



3. Pull the master out of the master clamp.

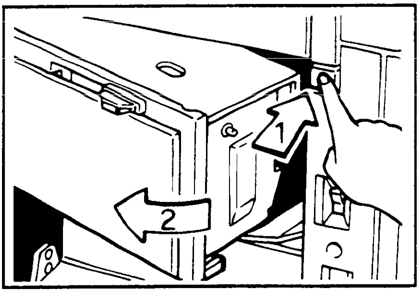


4. Re-insert the drum unit until the drum unit locks in position and put the lever back in place.

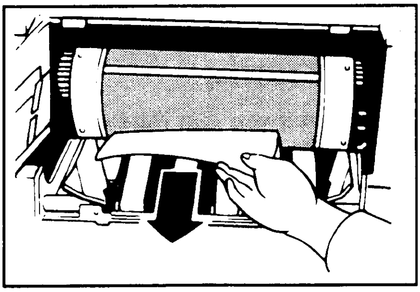


"⚡ + G" Paper misfeed in the paper exit section

1 Push the button to open the master eject unit.



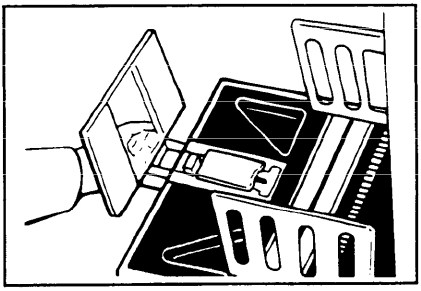
2 Remove the misfed paper.



3 Close the master eject unit.

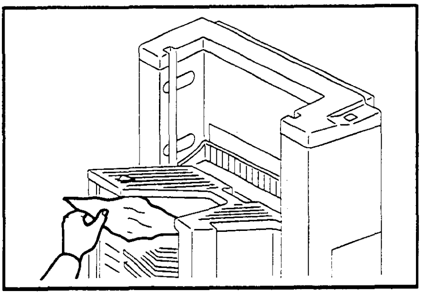
Check the following adjustment before restart operation:

Is the paper delivery end plate in the correct position?



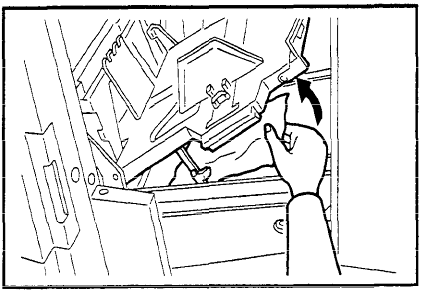
"ϟ + H" Paper Misfeed In The Optional Sorter Stapler

1 Remove the misfed paper from the bins.

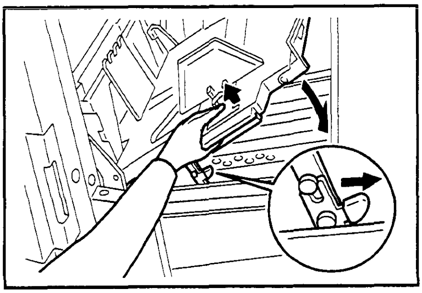


2 Open the non-sort tray. If you cannot remove misfed paper, remove the paper under the non-sort tray.

❒ Even if you can remove misfed paper in step 1, you should open the non-sort tray.



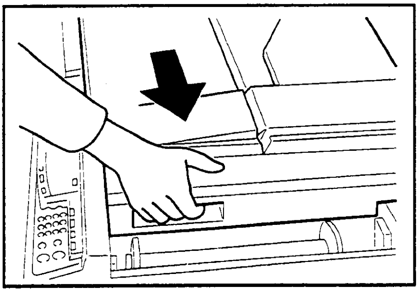
3 While lifting the non-sort tray, lower the knob to the right. Then, close the non-sort tray.



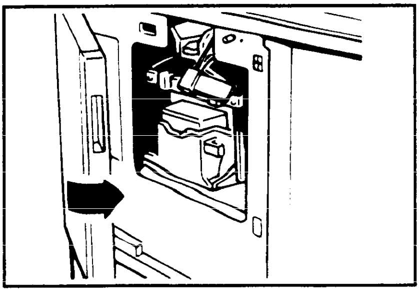
When The Open Cover/Unit Indicator (☐) Blinks

☐ Make sure that the following door/units are closed.

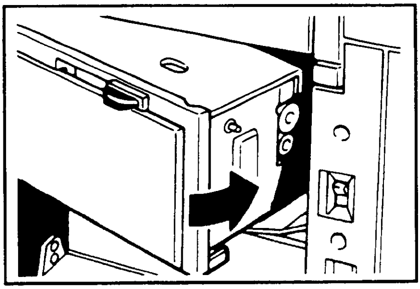
Original Table
Slide the original table until it locks in position.



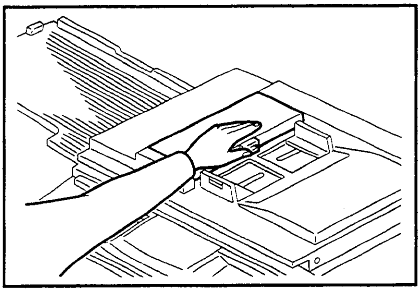
Front Door
Close the front door completely.



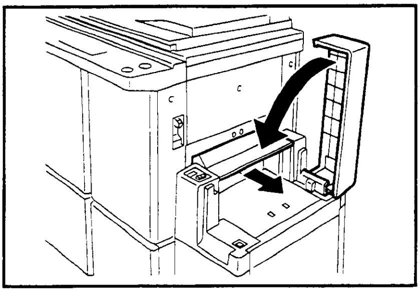
Master Eject Unit
Close the master eject unit until it locks in position.



ADF Unit *(Option)*
Close the ADF unit until it locks in position.

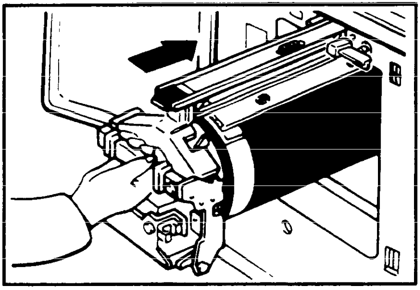


LCT Cover (Option)
Close the slide cover and LCT cover completely.



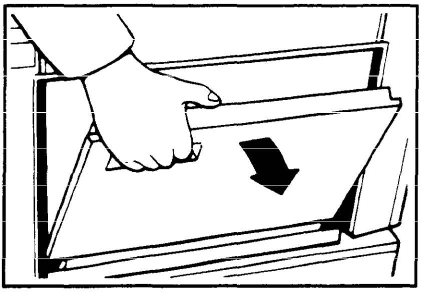
Make sure that the drum is completely set in position.

Set the drum completely until it locks in position.

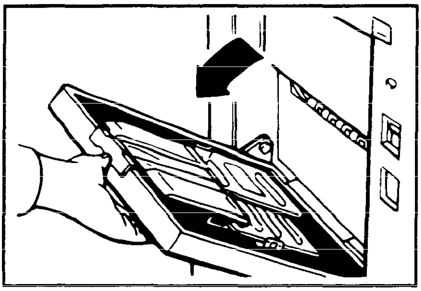


Make sure that the paper feed table and the paper delivery table are open.

Open the paper feed table.

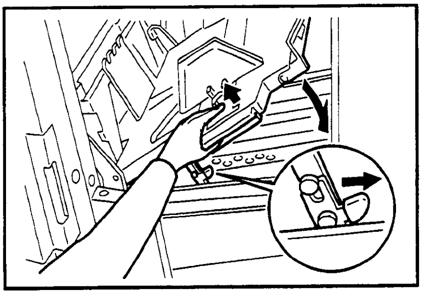


Open the paper delivery table.

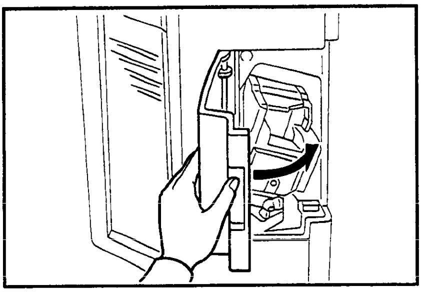


" ☐/* + H" Close the non-sort tray
Close the stapler unit cover
Remove obstacles from the non-sort tray

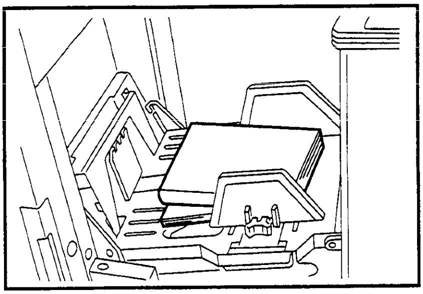
Non-sort tray
While lifting the non-sort tray, lower the knob to the right. Then, close the non-sort tray.



Stapler unit cover
Close the stapler unit cover.



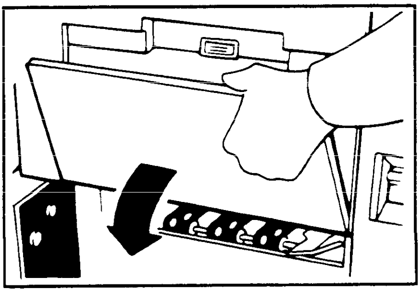
Non-sort tray
Remove obstacles from the non-sort tray.



When The Supply/Exchange Indicators Blink

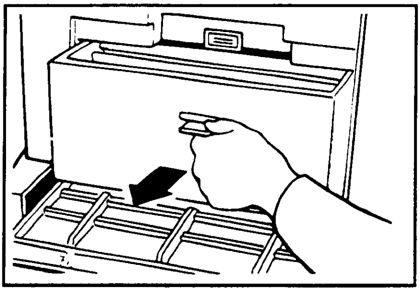
	Load paper ☛ See page 146.
+ Reset	**Load new ink cartridge** ☛ See page 147.
	Load new master roll ☛ See page 151.
+ H	**Set the new staple cartridge** ☛ See page 156.
+ Reset	**Empty master eject box** **Set the master eject box**

1 Open the master eject container cover.

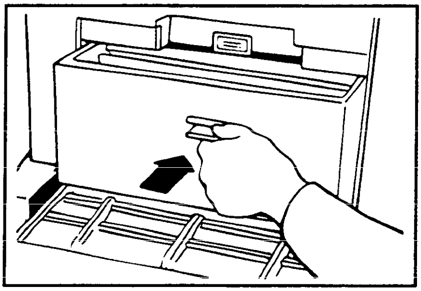


2 Take out the master eject box and remove the used masters.

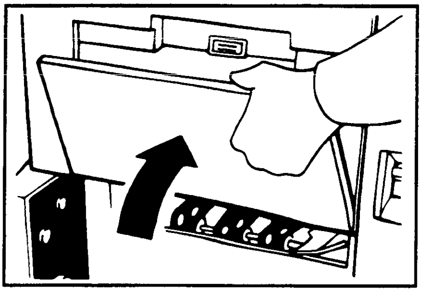
❐ Spread an old newspaper, then turn the master eject box upside down on it to remove the used masters. Then, throw away the masters.



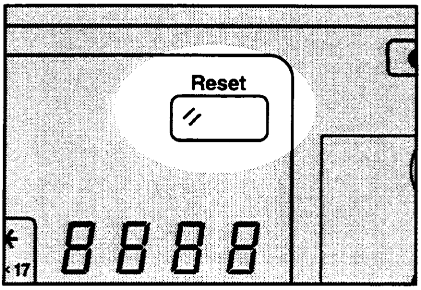
3 Reinstall the master eject box. Push in the box until it touches the inside bracket.



4 Close the cover of the master eject container.



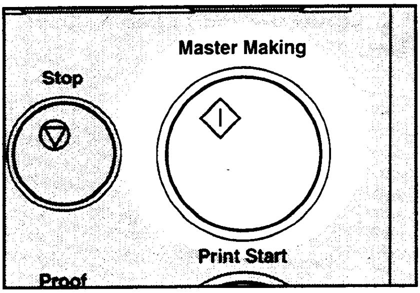
5 Press the **Reset** key.



When Other Indicators Blink

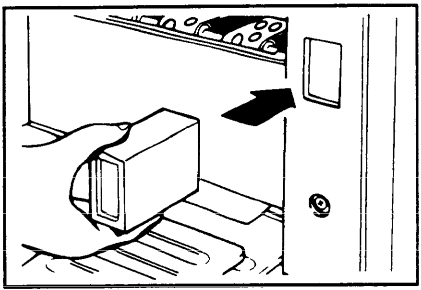
M The Master is not wrapped around the drum

Set the original on the exposure glass and press the **Master Making** key.


Master Making
Stop
Print Start
Proof

123 Set the key counter

The key counter (option) is not set. Insert the key counter.



Color

(Inch version) Color drum unit is installed

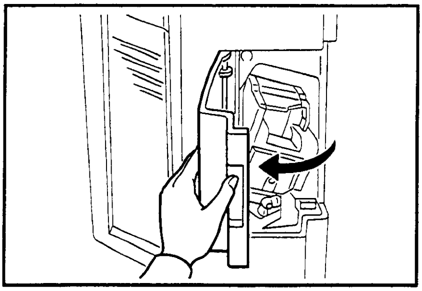
●

(Metric version)

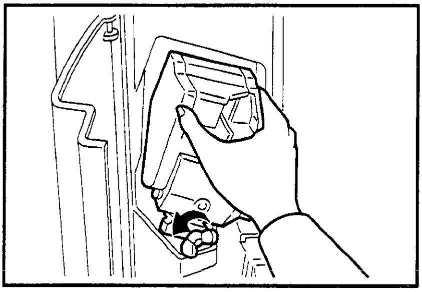
H + Reset Staple misfeed in the optional sorter stapler

☐ When staples do not come out at all, there may be misfed staples in the stapler unit.

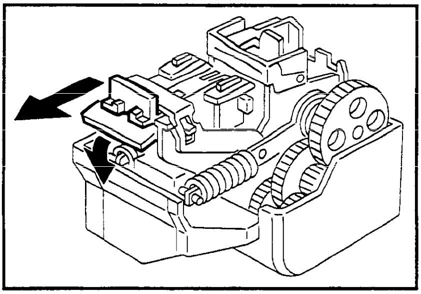
1 Open the stapler unit cover.



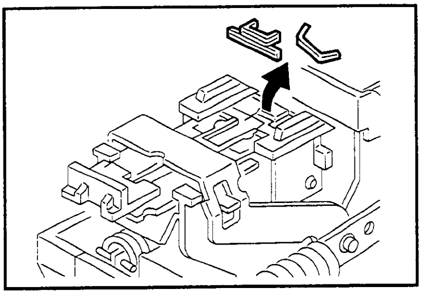
2 Loosen the screw by turning it counterclockwise. Then, remove the stapler unit.



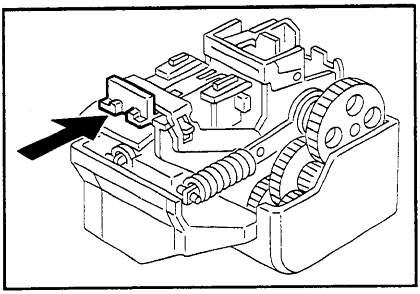
3 While pushing the stopper down, push the knob to your side. Then, open the stapler unit cover.



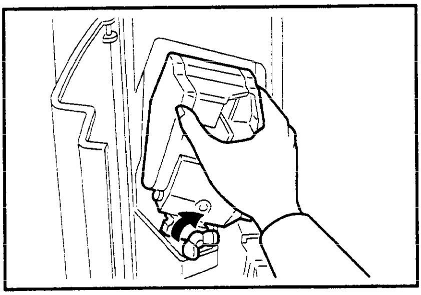
4 Remove misfed staples.



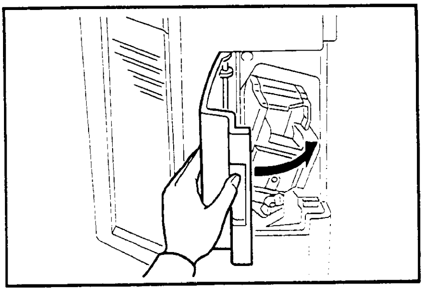
5 Close the stapler unit cover by pushing the knob to the other side.



6 Return the stapler unit to its original position and secure the screw.

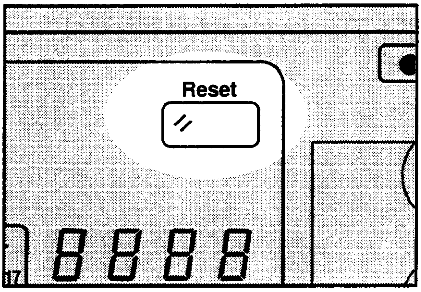


7 Close the stapler unit cover.



8 Press the **Reset** key.

❐ When you try to staple the next prints, staples may not come out. Try stapling 5 or 6 times.



9 When you use Auto staple or Manual Staple mode.

❶ Make sure that the **Staple** key is green.

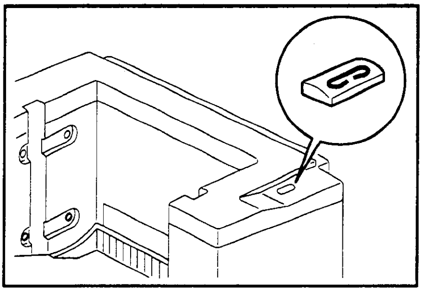
❷ Press the **Staple** key.

When you use Bypass Feed Stapling.

❶ Reset documents in the bin.

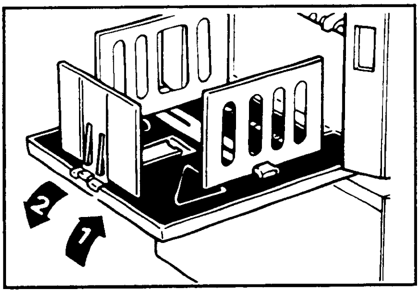
❷ Make sure that the **Staple** key is green.

❸ Press the **Staple** key.

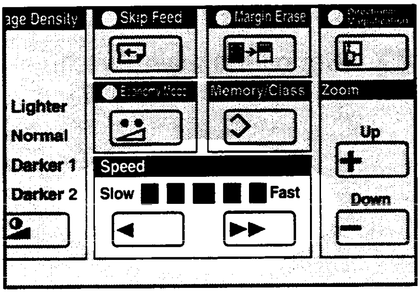


When The Prints Are Not Delivered In A Neat Stack, Or The Prints Are Thrown Over The Paper Delivery Table

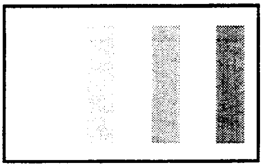
1 Lift the paper delivery table a little and bring it down until it clicks.



2 Reduce the printing speed by pressing the " ◄ " key.


ge Density
Skip Feed
Margin Erase
Memory/Class
Zoom
Lighter
Normal
Darker 1
Darker 2
Speed
Slow
Fast
Up
Down

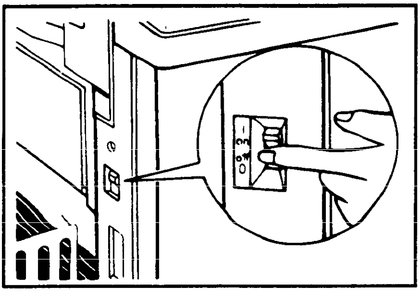
Poor Printing



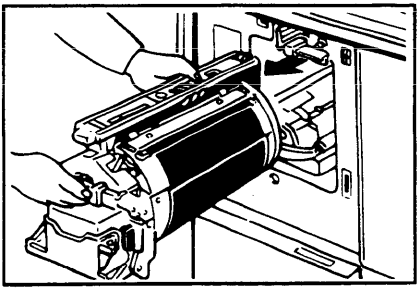
Dirty Background

- ☐ When you use paper smaller than the original, select the proper reduction ratio. Otherwise, you might get dirty background prints.
- ☐ When you use postcards and the like, the background might be dirty because postcards do not absorb ink well.
- ☐ You might get prints with dirty background when printing at high speed and under high temperature.

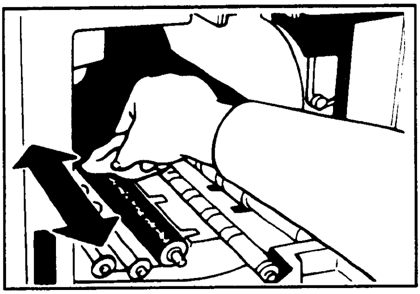
1 Turn off the main switch.



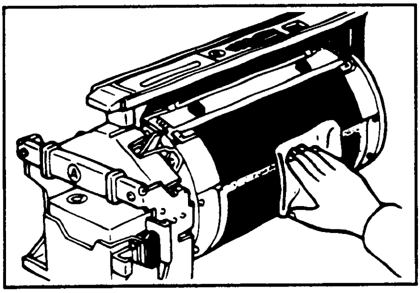
2 Pull out the drum unit. ☛ Refer to page 108 for the details.



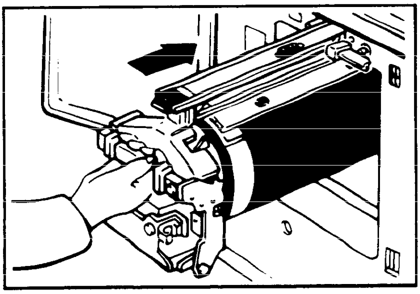
3 Clean the pressure roller with a clean cloth.



4 With a clean cloth, remove any ink that has accumulated on the trailing edge of the drum unit.

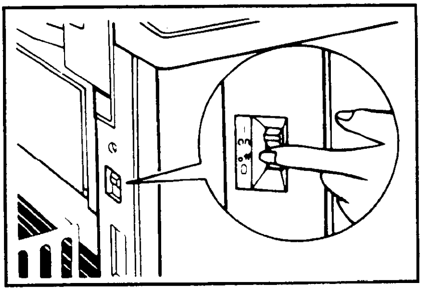


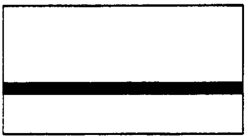
5 Insert the drum unit until it locks in position, then lower the drum unit lock lever.



6 Close the front door.

7 Turn on the main switch.



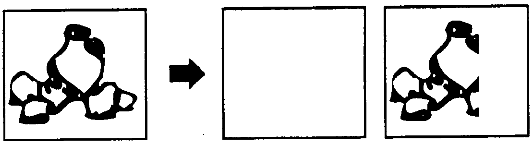


Black line/stain

❑ If there is no margin or if there is a solid image area near the leading edge of the original, make a margin of at least 5 mm, 0.2" at the leading edge. Otherwise, the paper exit pawl might become dirty and cause black lines on prints.

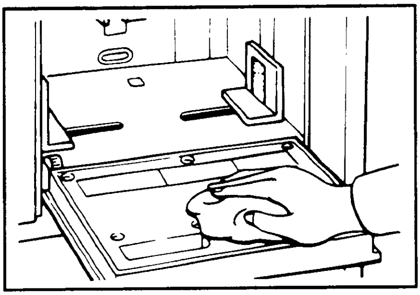
Check the following parts and clean them if they are dirty.
Platen cover. (☛ See page 158.)
Exposure glass. (☛ See page 158.)
Sheet. (☛ See page 159.)

When black lines or stains still appear on prints even if you clean the above, contact your service representative.

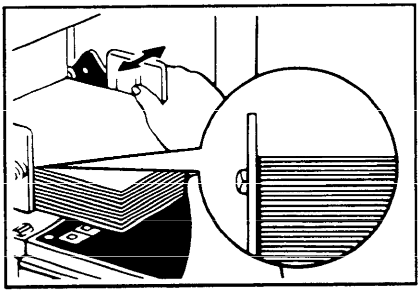


White prints or incomplete prints

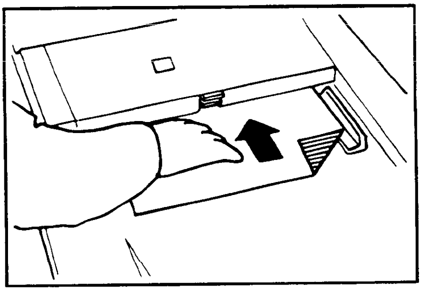
Check the paper size detection sensor and clean it if dirty.



Make sure that the paper feed side plates contact the paper lightly.

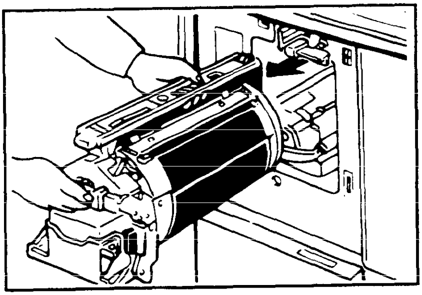


When you use the optional document feeder, make sure that the original guides contact the originals lightly.

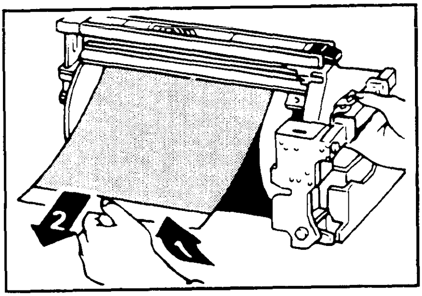


When you get white or incomplete prints even if you check the items on the previous page, perform the following procedure.

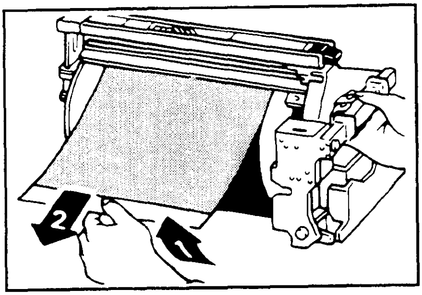
1 Pull out the drum unit. ☛ Refer to page 108 for the details.



2 Remove the master from the drum.

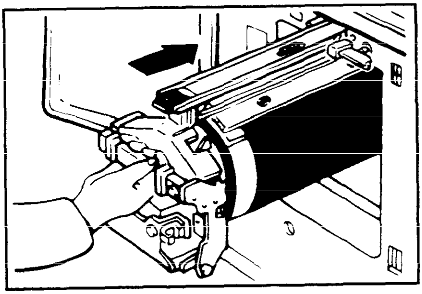


3 Remove paper that is stuck to the drum.



4 Insert the drum unit until it locks in position, then lower the drum unit lock lever.

5 Close the front door.



OPERATION NOTES

General Cautions

- Make sure to make a few trial prints to check the image position because the image position of the trial print might not correspond with that of the original.
- If the image registration is not consistent, slow the printing speed down to Setting 1 or 2.
- When performing duplex or multicolored printing, leave the printed paper for a while before the next printing in order to let the ink dry on the printed paper. If this is not done, feed roller marks will appear on the print image.
- If the machine is not used for a long period, the image density might decrease because the ink on the drum might dry. Make extra prints until the image density recovers.
- When the machine is used in low temperature conditions, the image density might decrease. In this case, slow the printing speed down to step 1 or 2.
- When making duplex prints, misdetection of paper wrapping may occur if the paper delivery sensor detects a black area at the leading edge of the back side. Keep at least an 5 mm, 0.2" margin at the leading edge of the back side of the printing paper.
- Press the **Proof** key to perform a test print as the first few prints may be light.
- The top sheet might remain between the feed rollers when you press the **Lower Paper Feed Table** key. In this case, remove the top sheet.
- When making duplex prints or when using non-white printing paper, the paper size detection sensors might malfunction and some part of the image might not appear on the print. In this case, place a blank sheet under the printing paper on the paper feed table.
- When making duplex prints or when using non-white printing paper, the paper end sensor might malfunction and fail to detect the paper. In this case, place a blank sheet under the printing paper on the paper feed table.
- The outer portion of the image might not be printed under low temperature. In this case, slow the printing speed down to step 1 or 2, or increase the room temperature.
- The paper exit pawl might contact the printing paper and cause black lines on the prints. In this case, increase the printing speed or make a new master with lighter image density mode.

- If you cannot pull out the drum, press the drum rotation button until it becomes green.
- The leading edge of the prints might become stained if the edge touches the image of prints on the paper delivery table.
- The ink of the print on the paper delivery table might stick to the back side of the next print.
- When the machine is on and the power source is less than 90% of the specified amount, printing quality will decrease. Therefore, make sure the supply from your electrical outlet is at least 90% of the required amount.
- As various kinds and qualities of paper exist, some paper might be wrapped around the drum or cause misfeeds.
- If your hands are stained with ink:
    - Avoid prolonged or repeated contact with skin.
    - Cleanse skin thoroughly after contact, before breaks and meals, and at the end of the work period.
    - Ink is readily removed from skin by waterless hand cleaners followed by washing with soap and water.
- Also, be careful not to get any ink on your clothing while emptying the master eject box or while loading a new ink cartridge.
- The image density varies according to the printing speed and the room temperature. So, adjust the printing speed or increase the room temperature.
- When you make a lot of prints from a small image, ink may ooze out from the edges of the master, especially under high temperature and when printing in two or more colors. In this case, make a new master.
- Use ink made within one year. Ink stored for a long period tends to dry slowly and yield lower image density.
- While making a master, do not leave the platen cover or optional document feeder open.
- When you store 1,000 ml/pack ink, make sure to store it upright with the cap pointing up.
- If you use originals of letters in Light or Dark Tone function, edges of the letters may be printed clearly and inside of the letters may become screened image.
- In Line/Photo mode, moire patterns may occur when screened originals are printed. In this case, make prints in Line or Photo mode.

☐ When you use originals with light lettering, edges of the letters may be printed clearly and the inside of the letters may be light. In this case, increase the image density.

☐ When you use originals of fine letters, letters on prints may be skipped. In this case, increase the image density or use Line mode.

☐ Up to 1,000 sheets of paper can be delivered to the paper delivery table. However, if 500 or more sheets of paper are delivered to the paper delivery table, the leading edge of the prints might become stained.

Print Paper

☐ When you use non-standard paper, some parts of the image might not appear on the print. In this case, set the machine not to detect paper size using the Service Programs. ☛ See page 137.

☐ When the paper is curled, stack the paper with the curl face down, otherwise the paper might wrap around the drum or stains may appear.

☐ Postcards and the like do not absorb ink well. Offset images might appear on the rear side of subsequent prints. Solid image originals will cause offset image prints.

Originals

☐ If there is no margin or if there is a solid image area near the leading edge of the original, make at least a 5 mm, 0.2", margin at the leading edge; otherwise, the paper might wrap around the drum or the paper exit pawl might become dirty and cause black lines on prints.

☐ If you use originals that have bold letters or solid images at the leading edges, you might get prints with dirty edges. In this case, insert the widest margin first, or raise the printing speed.

☐ If you use paste-up originals, make sure that the pasted parts hold firmly to the base sheet. If the thickness of the paste-up originals is more than 0.2 mm, 2/250" and the space between the pasted parts is less than 2 mm, 2/25", a shadow might appear on the print.

☐ Under the following conditions, the machine might not detect the original on the exposure glass. If you press the **Master Making** key again, the machine will start making a master anyway:

- When you set a dark original on the exposure glass.
- When the original is not centered according to the size marks on the left scale.
- If you do not open the platen cover at an angle of more than 25 degrees with the exposure glass when you replace originals.
- If the machine is installed under a strong light.

Misfed Paper

☐ After removing the misfed paper in the paper feed section, press the drum rotation button until the beeper sounds. Then, press the **Reset** key.

☐ When printing a large solid area on A3, 11" x 17" paper, the sides of the print tend to curl up after the print is fed out to the paper delivery table. The next sheet that feeds out pushes against the curled sheet and a paper misfeed occurs. In this case, slow the printing speed down (1 or 2 steps).

Optional Sorter Stapler

☐ Do not remove the staple cartridge from the stapler except for setting a new staple cartridge.

☐ Do not put obstacles under the bins.

☐ Do not put your hands or legs on the non-sort tray.

☐ Do not insert your hands in the bins during printing or stapling.

☐ Do not push or lean against the sorter stapler.

☐ Do not put your hands under the master eject unit during printing or stapling.

☐ When printing solid images in Sort, Staple Sort or Class Sort mode, the bottom prints delivered to the bins might be dirty. In this case, reduce the number of prints delivered to the bins.

- ❐ When printing solid images in Sort, Staple Sort or Class Sort mode, the top prints delivered to the bins might be dirty if the back of the previous bin is dirty. In this case, reduce the number of prints delivered to the bins or clean the back of the bins.
- ❐ In case of emergency, unplug the sorter stapler's power cord.

Optional Large Capacity Tray

- ❐ The top sheet might remain in the feed rollers when you press the **Change Paper** key. In this case, remove the top sheet.
- ❐ When you remove the paper cassette for LCT from the LCT, the top sheet might remain between the feed rollers. In this case, reset the remaining paper in the cassette.
- ❐ When you use bad quality paper under high temperature and humidity, do not set more than 1,000 sheets of paper in the LCT at a time and set new paper stack after running out old paper.

COMBINATION CHART

This combination chart shows which modes can be used together.

○: means that these modes can be used together.
✗ : means that these modes cannot be used together.
★: means that some functions in these modes cannot be used together.

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	Reduction		✗	✗	○	○	○	✗	○	○	○	○	○	✗	○	○	○
2	Enlargement	✗		✗	○	○	○	✗	○	○	○	○	○	✗	○	○	○
3	Zoom	✗	✗		○	○	○	✗	○	○	○	○	○	✗	○	○	○
4	Auto Cycle	○	○	○		○	○	○	○	○	○	○	○	★	★	○	○
5	Memory/Class	○	○	○	○		○	○	○	○	○	○	○	○	○	★	○
6	Multi Copy	○	○	○	○	○		○	○	○	○	○	○	✗	✗	○	○
7	Directional Mag.	✗	✗	✗	○	○	○		○	○	○	○	○	✗	○	○	○
8	Margin Erase	○	○	○	○	○	○	○		○	○	○	○	✗	○	○	○
9	Make-up	○	○	○	○	○	○	○	○		✗	○	○	✗	○	○	○
10	Line/Photo	○	○	○	○	○	○	○	○	✗		✗	○	✗	○	○	○
11	Line or Photo	○	○	○	○	○	○	○	○	○	✗		○	✗	○	○	○
12	Image Density	○	○	○	○	○	○	○	○	○	○	○		✗	○	○	○
13	On-Line	✗	✗	✗	○	★	✗	✗	✗	✗	✗	✗	✗		○	○	○
14	Overlay	○	○	○	○	★	✗	○	○	○	○	○	○	○		○	○
15	Sort	○	○	○	○	★	○	○	○	○	○	○	○	○	○		○
16	Economy	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	

SPECIFICATIONS

Main Frame

Configuration:	Desk top
Printing Process:	Full automatic one drum system
Original Type:	Sheet/Book
Original Size:	Maximum 307 mm x 432 mm, 12.0" x 17.0"
Pixel Density:	400 dpi
Image Mode:	Photo mode (Sand pattern) Line mode (Standard mode) Line/Photo mode
Reduction Ratios:	Inch version: 93%, 77%, 74%, 65% Metric version: 93%, 87%, 82%, 71%
Enlargement Ratios	Inch version: 155%, 129%, 121% Metric version: 141%, 122%, 115%
Zoom:	From 50% to 200% in 1% steps
Directional Magnification:	Vertical: From 50% to 200% in 1% steps Horizontal: From 50% to 200% in 1% steps
Printing Area:	A3 drum When using A3 paper: More than 290 mm x 410 mm, 11.4" x 16.1" When using 8 1/2" x 11" paper: More than 290 mm x 415 mm, 11.4" x 16.3" A4 drum More than 290 mm x 204 mm, 11.4" x 8.0"
Print Paper Size:	Maximum 297 mm x 432 mm, 11.6" x 17.0" Minimum 90 mm x 148 mm, 3.6" x 5.9"
Leading Edge Margin:	5 mm ± 3 mm, 0.2" ± 0.12"

Print Paper Weight:	47.1 g/m^2 to 209.3 g/m^2, 12.5 lb to 55.6 lb
Print Speed:	60 - 120 rpm (5 steps)
First Copy Time (Master Process Time):	Less than 23.5 seconds (A3, 11" x 17") Less than 19.0 seconds (A4, 81/2" x 11")
Second Copy Time (First Print Time):	Less than 26.5 seconds (A3, 11" x 17") Less than 21.5 seconds (A4, 81/2" x 11")
Color Printing:	Drum unit replacement system (red, blue, green, brown, yellow, purple, navy, and maroon)
Image Position:	Vertical: More than +15 mm, -20 mm, +0.59", -0.79" Side: 10 mm, 0.39" (for either side)
Paper Feed Table Capacity:	Table mode: 1,000 sheets (80 g/m^2, 20 lb)
Paper Delivery Table Capacity:	1,000 sheets (66.3 g/m^2, 17.6 lb) 1,000 sheets (80 g/m^2, 20 lb)
Master Eject Box Capacity:	A3 drum More than 50 masters under low temperature More than 60 masters at 23°C, 73°F More than 60 masters under high temperature A4 drum 90 masters

Dimensions (W x D x H):

	Width	Depth	Height
Stored	719 mm, 28.4"	698 mm, 27.5"	646 mm, 25.5"
Stored with document feeder	719 mm, 28.4"	698 mm, 27.5"	676 mm, 26.7"
Set up	719 mm, 28.4"	698 mm, 27.5"	644 mm, 25.4"
Set up with cabinet	719 mm, 28.4"	698 mm, 27.5"	1,072 mm, 42.3"
Set up with document feeder	1,331 mm, 52.5"	698 mm, 27.5"	666 mm, 26.3"
Set up with cabinet and document feeder	1,331 mm, 52.5"	698 mm, 27.5"	1,092 mm, 43.0"

Weight: Machine: 125 kg, 275.5 lb

Noise Emission:

(Sound pressure level*) * = The measurements are to be made according to ISO 7779.

Printing Speed	
60 rpm	58.5 dB
90 rpm	63 dB
120 rpm	66.5 dB

Power Source:

Master Making:
AC 120 V, 60 Hz, less than 3.6 A
Printing:
AC 120 V, 60 Hz, less than 3.0 A

Power Consumption:

Master Making: Less than 0.4 kW
Printing: Less than 0.31 kW

Optional Equipment:

Drum unit: Color Drum
(A3, 11" x 17") - red, blue, green, brown, yellow, purple, navy, and maroon
(A4, 81/2" x 11") - black, red, blue, green, brown, yellow, purple, navy, and maroon
Key Counter
Tape Dispenser
Cabinet
20 Originals Document Feeder
50 Originals Document Feeder
20-Bin Sorter Stapler (Up to 2 sorter staplers can be equipped with the main frame.)
Large Capacity Tray
Make-up

20 Originals Document Feeder

Original Type:	Sheet
Original Weight:	40.7 g/m^2 to 127.9 g/m^2, 10.8 lb to 34 lb
Original Size:	Max. 307 mm x 432 mm, 12.0" x 17.0" Min. 90 mm x 140 mm, 3.6" x 5.6"
First Copy Time (Master Process Time):	Less than 25.0 seconds (A3, 11" x 17") Less than 20.5 seconds (A4, 8½" x 11")
Second Copy Time (First Print Time):	Less than 28.0 seconds (A3, 11" x 17") Less than 23.0 seconds (A4, 8½" x 11")
Original Capacity:	20 sheets (66 g/m^2, 17.6 lb) 18 sheets (80 g/m^2, 20 lb) 1.8 mm, 0.07" height

50 Originals Document Feeder

Original Type:	Sheet
Original Weight:	40.7 g/m^2 to 127.9 g/m^2, 10.8 lb to 34 lb
Original Size:	Max. 307 mm x 432 mm, 12.0" x 17.0" Min. 90 mm x 140 mm, 3.6" x 5.6"
First Copy Time (Master Process Time):	Less than 25.0 seconds (A3, 11" x 17") Less than 20.5 seconds (A4, 8½" x 11")
Second Copy Time (First Print Time):	Less than 28.0 seconds (A3, 11" x 17") Less than 23.0 seconds (A4, 8½" x 11")
Original Capacity:	50 sheets (66 g/m^2, 17.6 lb) 42 sheets (80 g/m^2, 20 lb) 4.5 mm, 0.17" height

Large Capacity Tray (LCT)

Paper Size:	The following sizes can be set in the large capacity tray and the cassette for LCT. A3 ▭, B4 ▭, A4 ▯▭, B5 ▯▭, A5 ▭, 11" x 17" ▭, 81/2" x 14" ▭, 81/2" x 11" ▯▭ The following size can be set in the cassette for LCT: A6 ▭
Paper Capacity:	LCT: 4,000 sheets (64 g/m^2, 17 lb) 3,000 sheets (80 g/m^2, 20 lb) Cassette: 500 sheets (64 g/m^2, 17 lb) 400 sheets (80 g/m^2, 20 lb)
Power Source:	(DC) 24V, 5V
Power Consumption:	Less than 100 W
Weight:	Less than 37 kg, 82 lb
Dimensions: (W x D x H)	550 x 500 x 688 mm, 21.7" x 19.7" x 27.1"

20-Bin Sorter Stapler

Number of Bins: 20 bins + non-sort tray

Paper Size:

on non-sort tray	Maximum: 320 x 447 mm, 12.6" x 17.6"
	A3 ▭, B4 ▭, A4 ▯▭, B5 ▯▭, 11" x 17" ▭, 8½" x 14" ▭, 8½" x 11" ▯▭
in Sort mode	Maximum: 300 x 432 mm, 11.9" x 17.1"
	A3 ▭, B4 ▭, A4 ▯▭, B5 ▯▭, A5 ▭ 11" x 17" ▭, 8½" x 14" ▭, 8½" x 11" ▯▭
in Staple mode	Maximum: 300 x 432 mm, 11.9" x 17.1"
	A3 ▭, B4 ▭, A4 ▯▭, B5 ▯, 11" x 17" ▭, 8½" x 14" ▭, 8½" x 11" ▯▭
in Class mode	Maximum: 300 x 432 mm, 11.9" x 17.1"
	A3 ▭, B4 ▭, A4 ▯▭, B5 ▯▭, A5 ▭ 11" x 17" ▭, 8½" x 14" ▭, 8½" x 11" ▯▭, 5½" x 8½" ▭

Paper Weight:

on non-sort tray	47 ~ 210 g/m^2, 12.6 ~ 55.8 lb
in Sort mode	64 ~ 82 g/m^2, 17.1 ~ 21.8 lb
in Staple mode	64 ~ 82 g/m^2, 17.1 ~ 21.8 lb
in Class mode	64 ~ 82 g/m^2, 17.1 ~ 21.8 lb

Printing Speed:
on non-sort tray: 60 ~ 120 rpm
in Sort, Staple, or Class mode: 60 rpm

Non-sort tray Capacity:

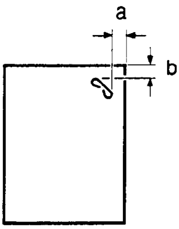
300 sheets
(Less than 64 g/m^2, 17.0 lb)

200 sheets
(Less than 157 g/m^2, 41.7 lb)

150 sheets
(Less than 210 g/m^2, 55.8 lb)

Bin Capacity:	Sorting: 50 sheets (64 ~ 82 g/m^2, 17.1 ~ 21.8 lb, smaller than B4, 8 1/2" x 14") 25 sheets (64 ~ 82 g/m^2, 17.1 ~ 21.8 lb, smaller than A3, 11" x 17" and the paper size other than the size described in "Paper size" section)

Stapling Position:



a = 5 ± 2.5 mm, 0.2" ± 0.1"
b = 5 ± 2.5 mm, 0.2" ± 0.1"

Stapler Capacity:	50 sheets (64 g/m^2, 17.1 lb) 40 sheets (80 g/m^2, 20 lb) 42 sheets (75 g/m^2, 20 lb)
Staple replenishment:	Cartridge exchange (5,000 pieces/cartridge)

Dimensions (only sorter stapler):

	Width	**Depth**	**Height**
Stored one sorter stapler	908 mm, 35.8"	597 mm, 23.6"	926 mm, 36.5"
Set up one sorter stapler	908 mm, 35.8"	597 mm, 23.6"	1,082 mm, 42.6"
Stored two sorter staplers	1,507 mm, 59.4"	617 mm, 24.3"	926 mm, 36.5"
Set up two sorter staplers	1,507 mm, 59.4"	617 mm, 24.3"	1,082 mm, 42.6"

Weight:	57.5 kg, 127 lb (One sorter stapler) 106.5 kg, 235 lb (Two sorter staplers)
Power Source:	AC 120 V, 60 Hz, 3.0A (1st sorter stapler) DC 24 V (2nd Sorter Stapler, from the 1st Sorter Stapler)

Power Consumption: 160 W

Noise Emission: Less than 70 dB(A)
(Sound pressure level*)
* = The measurements are to be made according to ISO 7779.

Consumables

Name	Size	Remarks
Master:	Length: 125m, 410 ft/roll Width: 320 mm, 12.6" 2 Rolls/case	A3 drum 226 masters can be made per roll A4 drum 370 masters can be made per roll
Ink-Black	1,000 ml/pack, 600 ml/pack, 5 packs/case	Environmental conditions: – 5 ~ 40 °C 10 ~ 95 %RH
Ink-Red	600 ml/pack, 5 packs/case	
Ink-Blue	600 ml/pack, 5 packs/case	
Ink-Green	600 ml/pack, 5 packs/case	
Ink-Brown	600 ml/pack, 5 packs/case	
Ink-Yellow	600 ml/pack, 5 packs/case	
Ink-Purple	600 ml/pack, 5 packs/case	
Ink-Navy	600 ml/pack, 5 packs/case	
Ink-Maroon	600 ml/pack, 5 packs/case	
Tape for Tape dispenser	35m (114.8ft)/roll	

❒ Specifications are subject to change without notice.

Section 2

WHAT IS IMAGE MAKE-UP

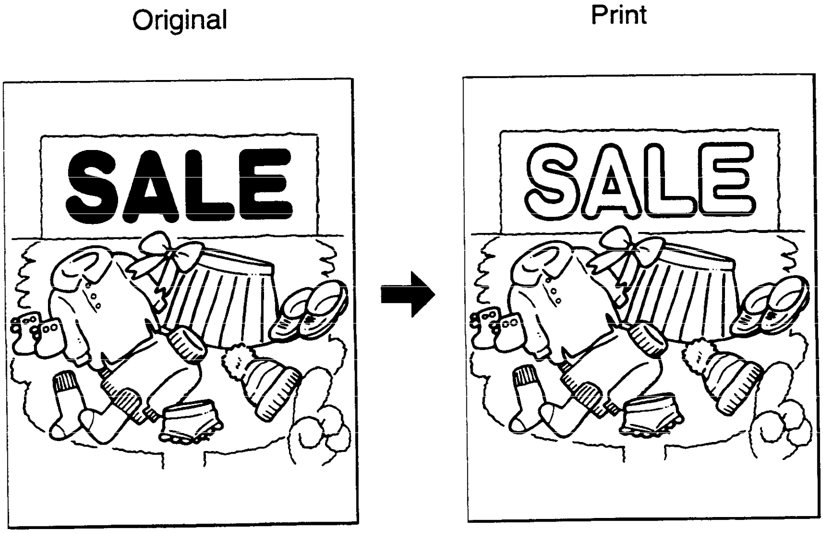
The image make-up mode enables you to do more than just make **an exact copy of the original**. A variety of editing and image processing functions allow you to quickly and easily customize your prints.

Main Features

- The use of command sheets allows you to create special effects without cutting and pasting - up to 4 commands can be given for an original.
- By combining image make-up functions with color drums, you can create a variety of printing effects.

Practical Examples Of Image Make-up Functions

Outline mode



Original

Print

Delete mode

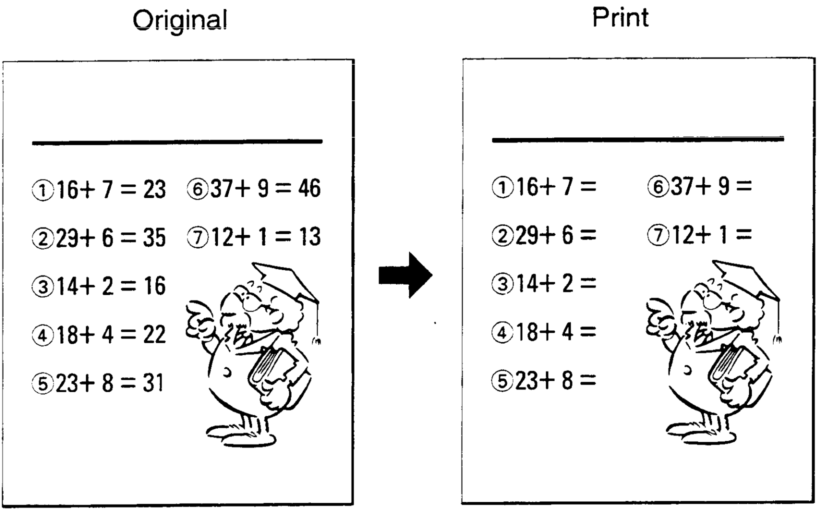
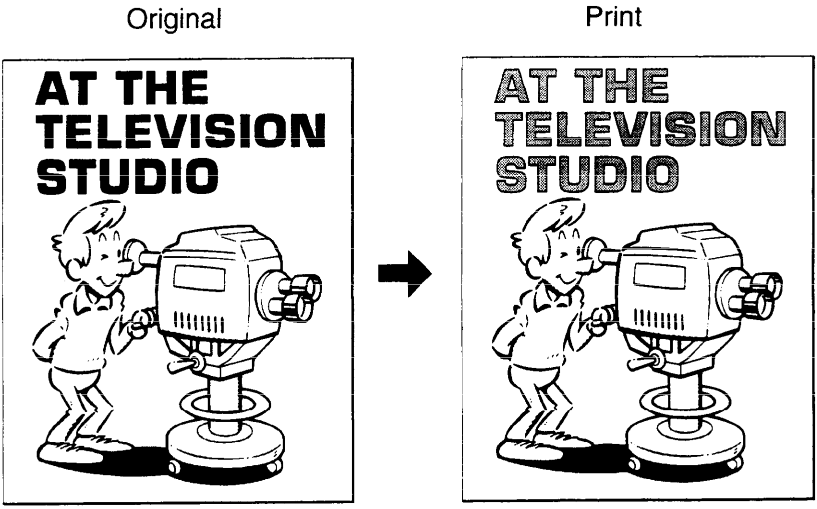

Original
Print
①16+ 7 = 23 ⑥37+ 9 = 46
②23+ 6 = 35 ⑦12+ 1 = 13
③14+ 2 = 16
④18+ 4 = 22
⑤23+ 8 = 31
①16+ 7 = ⑥37+ 9 =
②29+ 6 = ⑦12+ 1 =
③14+ 2 =
④18+ 4 =
⑤23+ 8 =

Image Pattern mode


Original
Print
AT THE TELEVISION STUDIO
AT THE TELEVISION STUDIO

Area Pattern mode

Original

Print

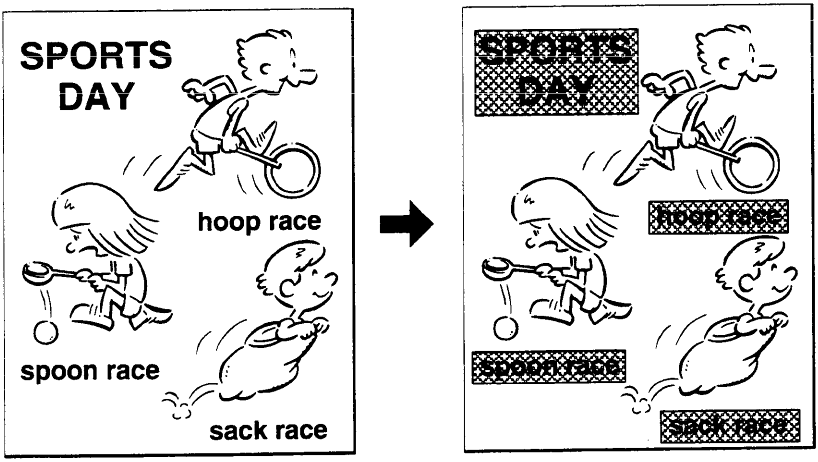

SPORTS DAY
hoop race
spoon race
sack race
SPORTS DAY
hoop race
spoon race
sack race

Image Outline and Area Pattern mode

Original

Print

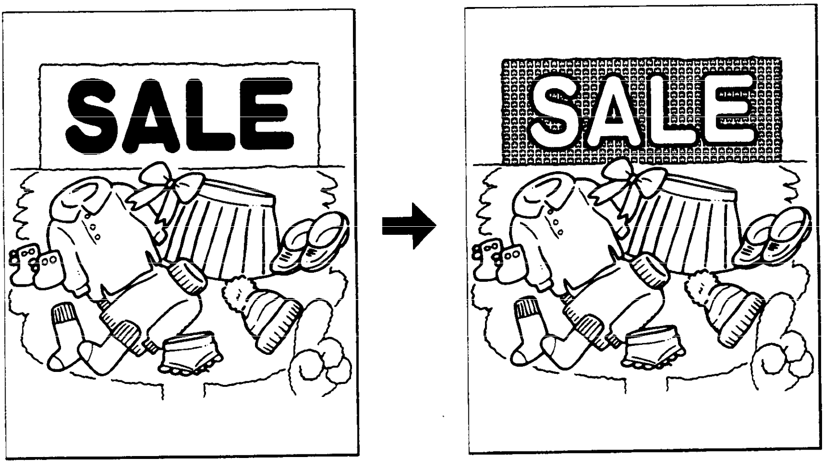


Image Make-up modes for designated areas

The following commands are for designated areas.

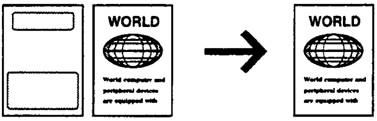
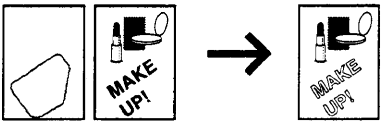
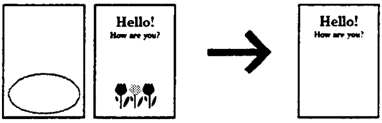
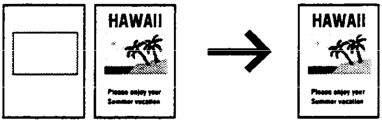
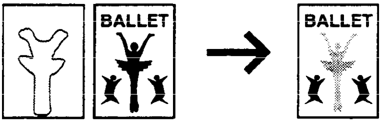
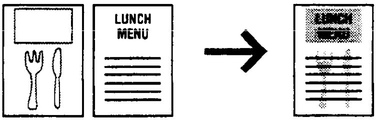
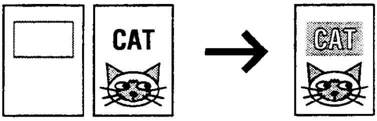
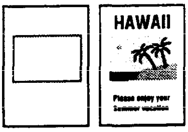
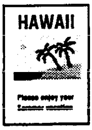
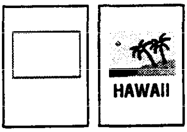
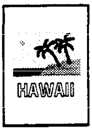
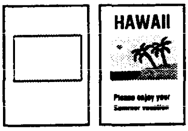
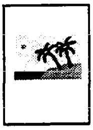
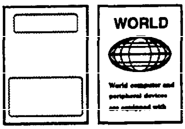
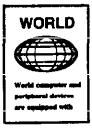
Mode		Sample	Command No.	
Designated Area		Command sheet/Original (Closed area method) Print	Closed area method	Diagonal line method
1.	Line mode	 WORLD WORLD	Fn 1	Fn 11
2.	Outline mode	 MAKE UP! MAKE UP!	Fn 2	Fn 12
3.	Delete mode	 Hello! How are you? Hello! How are you?	Fn 3	Fn 13
4.	Photo mode	 HAWAII Please enjoy your Summer vacation HAWAII Please enjoy your Summer vacation	Fn 4	Fn 14
5.	Image Pattern mode	 BALLET BALLET	Fn 5	Fn 15
6.	Area Pattern mode	 LUNCH MENU LUNCH MENU	Fn 6	Fn 16
7.	Image Outline & Area Pattern mode		Fn 7	Fn 17

Image Make-up modes for outside designated areas

The following commands are for the area outside the designated areas.

	Mode Undesignated Area	Sample Command sheet / Original	 Print	Command No.
1.	Line mode: The area outside designated areas is printed in Line mode.			Fn 1
2.	Outline mode: The area outside designated areas is printed in outline mode.			Fn 2
3.	Delete mode: The area outside the designated areas is deleted.			Fn 3
4.	Photo mode: The area outside the designated area is printed in photo mode.			Fn 4

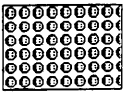
- ❏ In Make-up mode, commands must be given for both designated areas and outside the designated area.

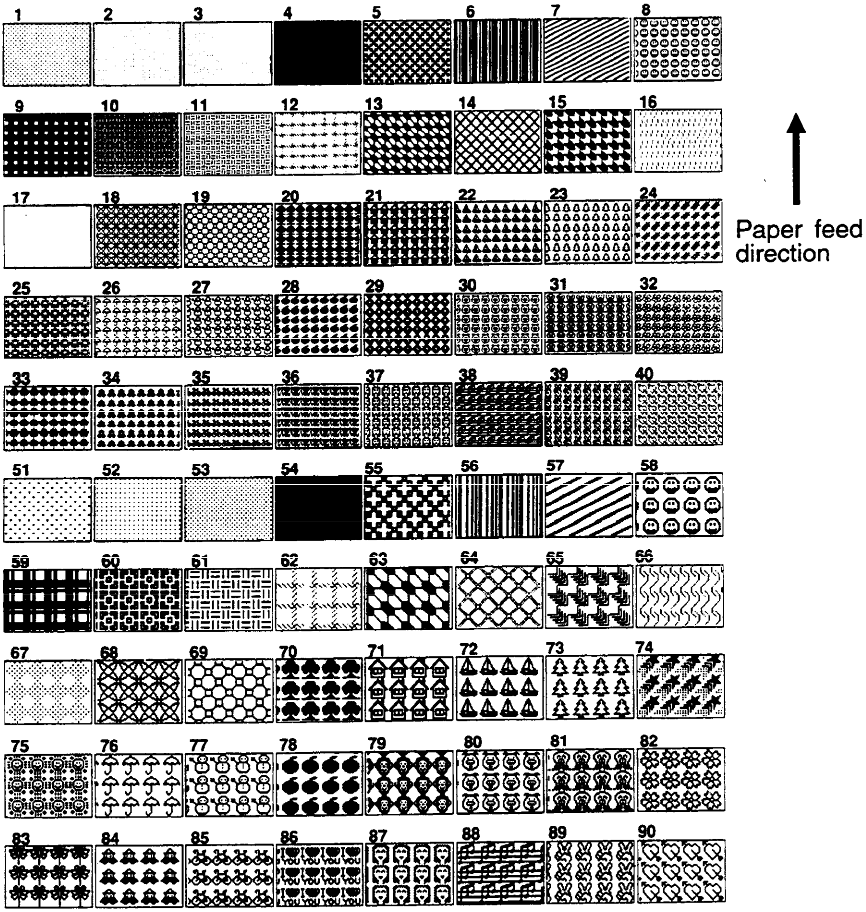
Background Patterns

There is a total of 160 background patterns for Image Make-up mode: 40 basic patterns, 40 patterns similar to the basic patterns but with pattern elements at twice the size, and 90° rotations of all the basic and enlarged patterns.

- The basic patterns are numbered 1 to 40.
- The patterns with enlarged elements are numbered 51 to 90.
- The rotated pattern's numbers are obtained by adding 100 to a basic or enlarged pattern's number.

[Example]
Pattern No. 108




1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
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73
74
75
76
77
78
79
80
81
82
83
84
85
86
87
88
89
90
Paper feed direction

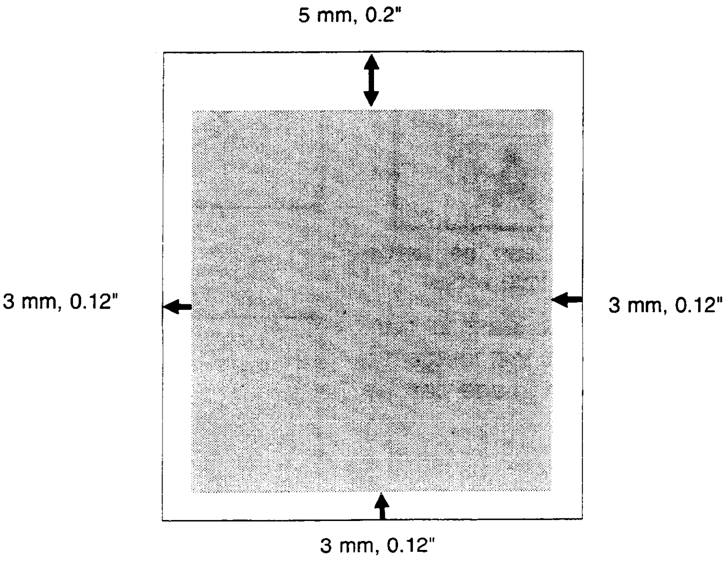
PREPARING IMAGE MAKE-UP

Outline

Command sheets are fed first so that the machine can recognize the areas of the original which are to be edited as designated areas.

Command sheet

- The command sheet is a sheet of paper for designating areas to be edited. **Command sheets must be made on white or translucent paper, and should be the same size as the original.**
- Poor quality paper (such as newsprint, recycled paper, etc.) should not be used for command sheets because any dark spots or streaks will be read as designated areas.
- Do not use blotting paper or other absorbent papers for command sheets because ink might leak through the paper and get the exposure glass dirty.
- You can designate areas inside the limits given below.



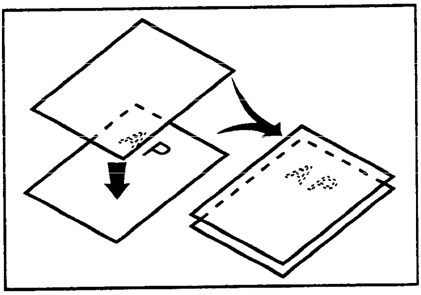
How To Make A Command Sheet

There are two ways of designating areas: the diagonal line method and the closed area method.

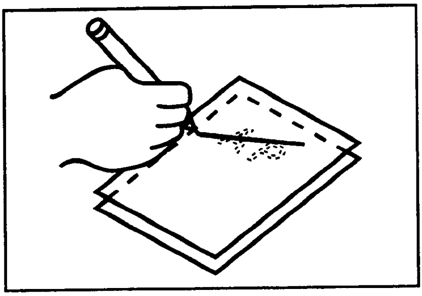
When using the diagonal line method

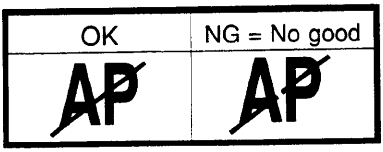
- A diagonal line must be drawn through the area corresponding to what you want to edit.

1. Put the command sheet on top of the original.



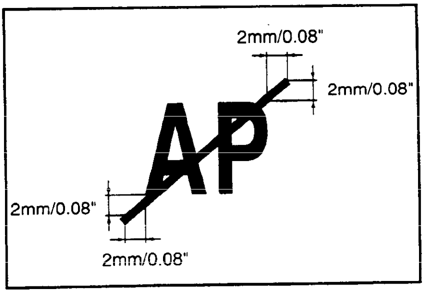
2. Draw a line using a felt tip pen (black, red or blue) with a thickness of at least 2 mm, 0.08", making sure there is no break in the line.



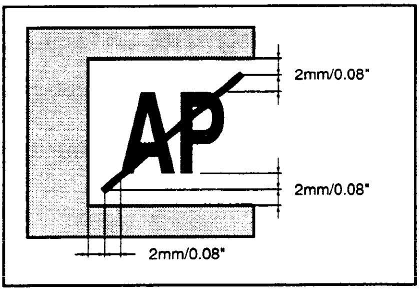


- The diagonal line can be drawn from left to right or vice versa.

Draw the line at least 2 mm, 0.08", away from the image so that the complete image can be recognized.



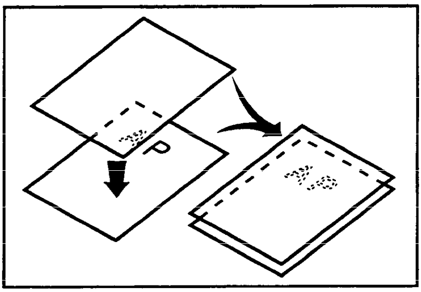
The line marking the designated area should be more than 2 mm, 0.08", from any neighboring image.


AP
2mm/0.08"
2mm/0.08"
2mm/0.08"

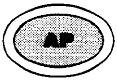
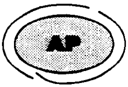
When using the closed area method

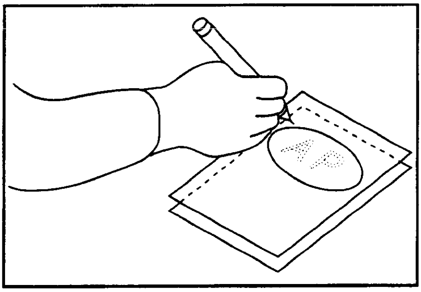
☐ The line designating the area must be a closed loop.

1 Put the command sheet on top of the original.

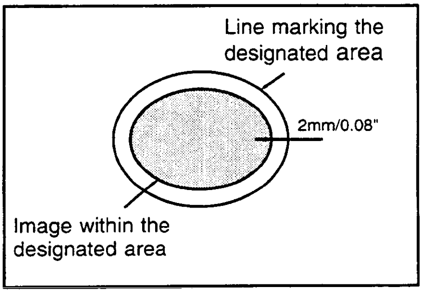


2 Using a black, red, or blue felt tip pen, draw a line around the area to designate. The line should have a thickness of at least 2 mm, 0.08". Make sure there is no break in the line.

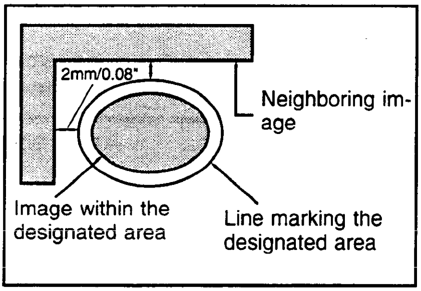
OK	NG = No good
	



Draw the line at least 2 mm, 0.08", from the image so that the complete image can be recognized.

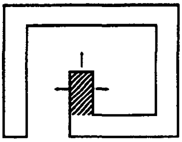
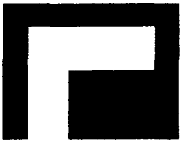
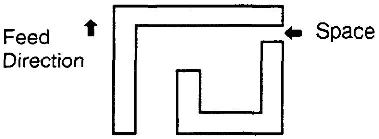
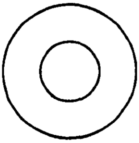
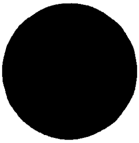
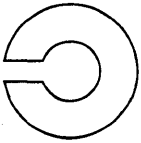
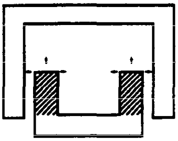
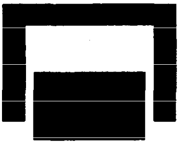
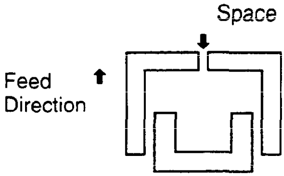
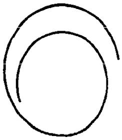
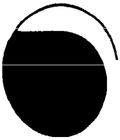
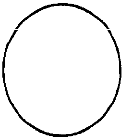

Line marking the designated area
2mm/0.08"
Image within the designated area

The line marking the designated area should be more than 2 mm, 0.08", from any neighboring image.


2mm/0.08"
Neighboring image
Image within the designated area
Line marking the designated area

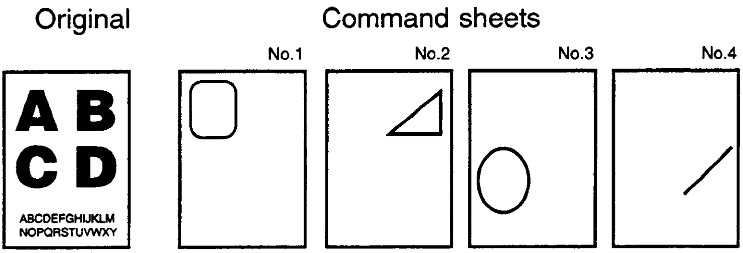
Notes about drawing a command sheet

❒ The image may differ depending on how the designated area is drawn, **so remember the following when making the command sheet:**

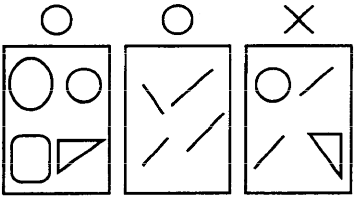
Designated area	Area recognized	Preferred designated area
Part of the designated area is surrounded by 3 sides of the entire area. 		Make a space of at least 2 mm, 0.08", in front of the area surrounded by 3 sides **(relative** to the feed direction). 
Double line pattern. 	Only the outer line is recognized. 	Make a gap of at least 2 mm, 0.08" in width. 
The designated area is surrounded by 3 sides of another designated area. 		Make a space of at least 2 mm, 0.08" in front of the area surrounded by 3 sides (**relative** to the feeding direction). 
Non-closed line 		Designate the area with a closed line. 

Features

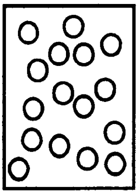
- You can combine up to 4 command sheets when making a master.


Original
Command sheets
No.1
No.2
No.3
No.4
A B
C D
ABCDEFGHIJKLM
NOPQRSTUVWXY

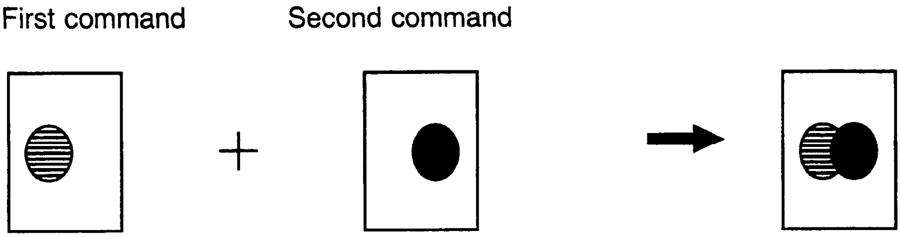
- You cannot use both the closed and diagonal line method on the same command sheet.



- You can designate many areas on one sheet and there is no limit to the number of areas you can designate.



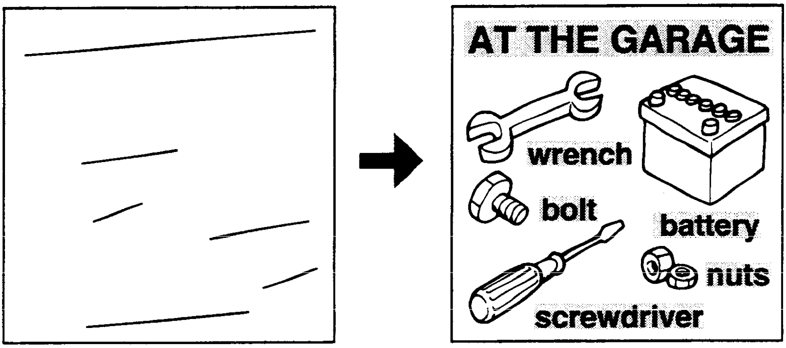
- If designated areas on two or more command sheets overlap, the last command sheet will apply for the overlapping portion.


First command
Second command

Command sheets and finished prints

The following illustrations will help you understand how to draw a command sheet.

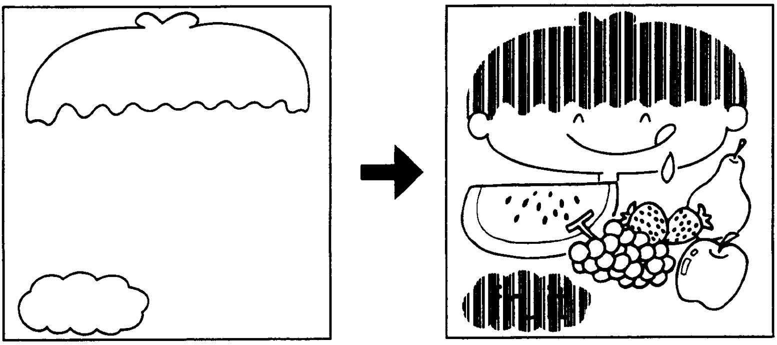
When drawing a command sheet using a diagonal line


Command sheet

Print

- The diagonal line method is easy to use for designating rectangular areas. It is also more precise, but it is difficult to use for designating complex areas.

When drawing a command sheet using a closed line


Command sheet

Print

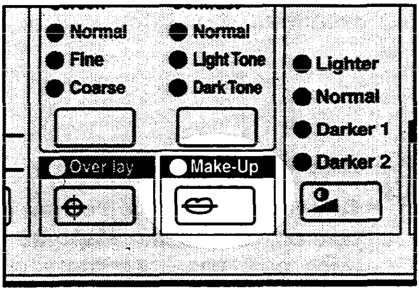
- The closed line method is easier to use for complex areas, but it is less precise. It also takes longer to draw a command sheet with the closed line method.

HOW TO USE IMAGE MAKE-UP MODE

Saving And Deleting Modes (One Command Sheet)

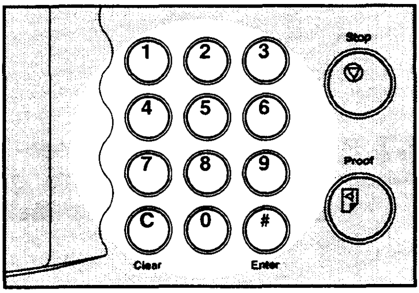
1 Press the **Make-up** key.

- If you want to leave Make-up mode at any time, press the **Make-up** key again.


Normal
Fine
Coarse
Normal
Light Tone
Dark Tone
Lighter
Normal
Darker 1
Darker 2
Over lay
Make-Up

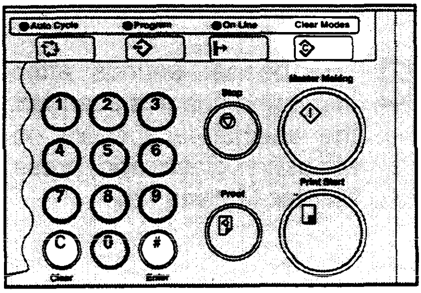
2 Using the **Number** keys, select Image Make-up mode for the designated area. (☛ See page 5.)

Save area ... Fn1 or Fn11
Delete area ... Fn3 or Fn13


1
2
3
4
5
6
7
8
9
C
0
#
Stop
Proof
Clear
Enter

3 Press the **Enter** key.

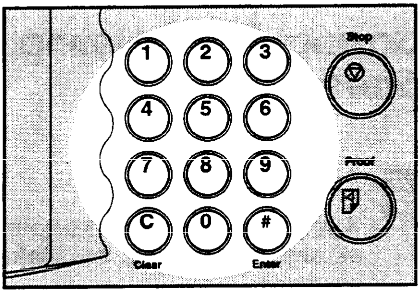
- If a Fn No. (command number) was entered previously and is still in memory, press the **Clear** key.
- The commands entered previously are stored in memory until the main switch is turned off or the **Clear Modes** key is pressed.


Auto Cycle
Program
On Line
Clear Modes
Master Making
Stop
Print Start
Proof
1
2
3
4
5
6
7
8
9
C
0
#
Clear
Enter

4. Press the **Enter** key again.

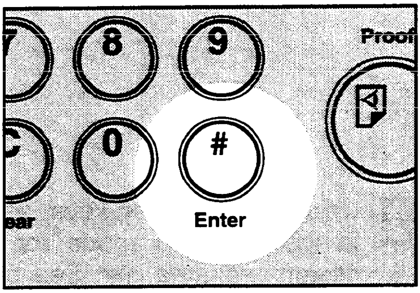
5. Using the **Number** keys, select Image Make-up mode for the outside area (☛ See page 6).

   Save area ... Fn1
   Delete area ... Fn3

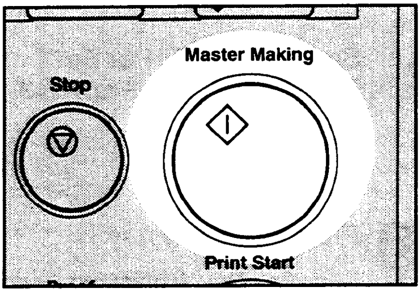

1
2
3
4
5
6
7
8
9
C
0
#
Clear
Enter
Stop
Proof

6. Press the **Enter** key.

   To check the modes that you have entered, press the **Make-up** key twice and then keep pressing the **Enter** key to display the modes on the guidance display one at a time.


8
9
0
#
Enter
Proof

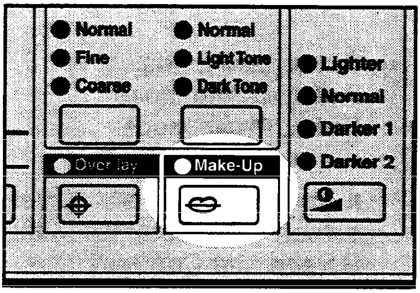
7. Set the command sheet face down on the exposure glass and press the **Master Making** key.


Master Making
Stop
Print Start

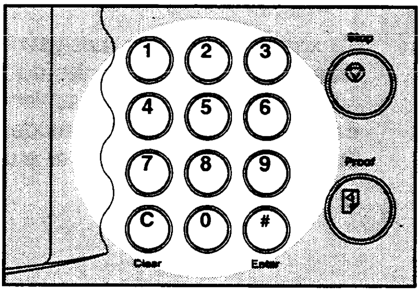
8. The beeper sounds after the command sheet is scanned. Set the original face down on the exposure glass and press the **Master Making** key.

Outline Mode (One Command Sheet)

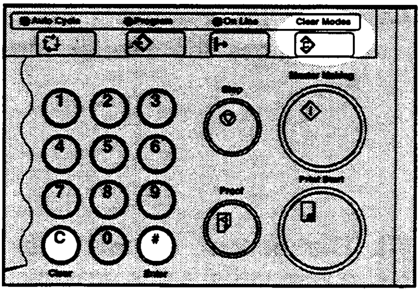
1. Press the **Make-up** key.
   - If you want to leave the Make-up mode at any time, press the **Make-up** key again.


Normal
Fine
Coarse
Normal
Light Tone
Dark Tone
Lighter
Normal
Darker 1
Darker 2
Over lay
Make-Up

2. Using the **Number** key, select the Outline mode (Fn2) for the designated area. (☛ See page 5.)


1
2
3
4
5
6
7
8
9
C
0
#
Stop
Proof
Clear
Enter

3. Press the **Enter** key.
   - If a Fn No. (Command number) was entered previously and is still in memory, press the **Clear** key.
   - The commands entered previously are stored in memory until the main switch is turned off or the **Clear Modes** key is pressed.

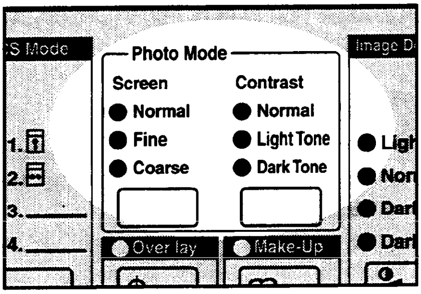

Auto Cycle
Program
On Line
Clear Modes
Master Making
Stop
Proof
Print Sheet
1
2
3
4
5
6
7
8
9
C
0
#
Clear
Enter

4. Press the **Enter** key again.

5 Using the **Number** keys, select Image Make-up mode for the outside area (☛ See page 6).

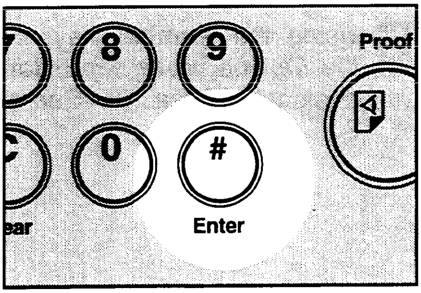
Fn1 ... Line mode
Fn3 ... Delete mode
Fn4 ... Photo mode

If you entered Fn4, adjust the screen and contrast with the **Screen** and **Contrast** keys.

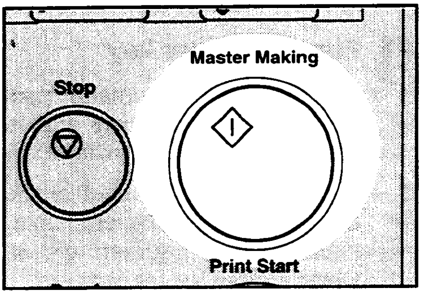

S Mode
Photo Mode
Screen
Contrast
● Normal
● Fine
● Coarse
● Normal
● Light Tone
● Dark Tone
1.
2.
3.
4.
Over lay
Make-Up
Image D

6 Press the **Enter** key.

☐ To check the modes that you have entered, press the **Make-up** key twice and then keep pressing the **Enter** key to display the modes on the guidance display one at a time.


8
9
0
#
Enter
Proof

7 Set the command sheet face down on the exposure glass and press the **Master Making** key.

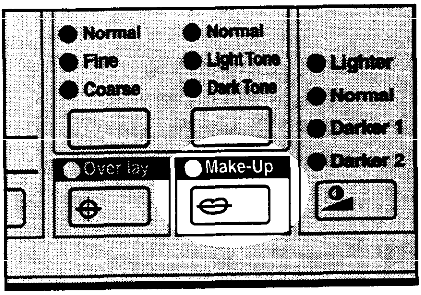

Master Making
Stop
Print Start

8 The beeper sounds after the command sheet is scanned. Set the original face down on the exposure glass and press the **Master Making** key.

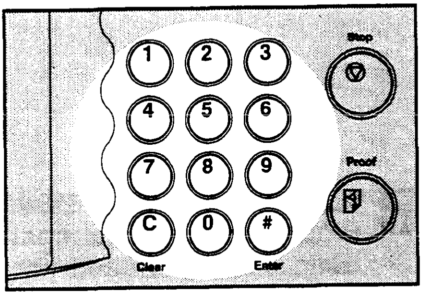
Photo Mode (One Command Sheet)

1 Press the **Make-up** key.

❐ If you want to leave Make-up mode at any time press the **Make-up** key again.


Normal
Fine
Coarse
Normal
Light Tone
Dark Tone
Lighter
Normal
Darker 1
Darker 2
Over lay
Make-Up

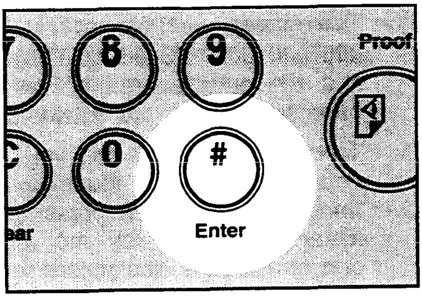
2 Using the **Number** keys, select Image Make-up mode (Fn4 or Fn14) for the designated area. (☛ See page 5).


1
2
3
4
5
6
7
8
9
C
0
#
Clear
Enter
Stop
Proof

3 Press the **Enter** key.

❐ If a Fn No. (command number) was entered previously and remains in memory, press the **Clear** key.

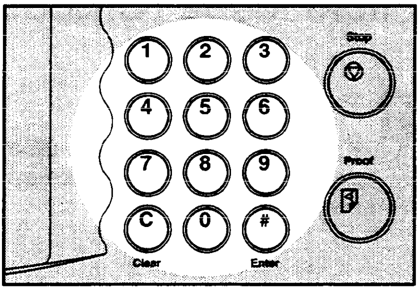
❐ The commands entered previously are stored in memory until the main switch is turned off or the **Clear Modes** key is pressed.


8
9
0
#
Enter
Proof

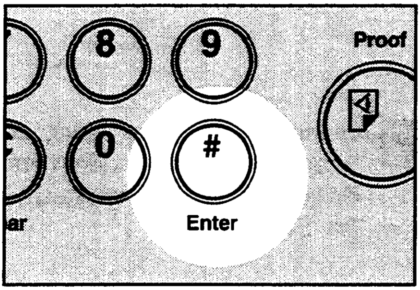
4 Press the **Enter** key again.

5 Using the **Number** keys, select Image Make-up mode for the outside area. (☛ See page 6.)

Fn1 ... Line mode
Fn2 ... Outline mode
Fn3 ... Delete mode
Fn4 ... Photo mode


1
2
3
4
5
6
7
8
9
C
0
#
Clear
Enter
Stop
Proof

6 Press the **Enter** key.


8
9
0
#
Enter
Proof

7 Adjust the screen (Standard, Fine, Coarse) and contrast (Standard, Light, Dark) with the **Screen** and **Contrast** keys.

- The screen and contrast settings apply to both the designated area and the outside area if Fn4 has been specified for the outside area.
- To check the modes that you have entered, press the **Make-up** key twice and then keep pressing the **Enter** key to display the modes one at a time on the guidance display.

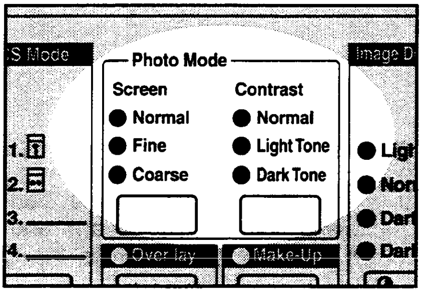
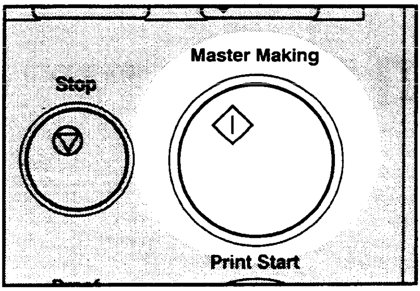
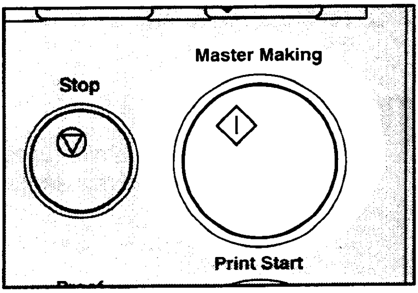


Photo Mode
Screen
● Normal
● Fine
● Coarse
Contrast
● Normal
● Light Tone
● Dark Tone
Over lay
Make-Up

8 Set the command sheet face down on the exposure glass and press the **Master Making** key.


Master Making
Stop
Print Start

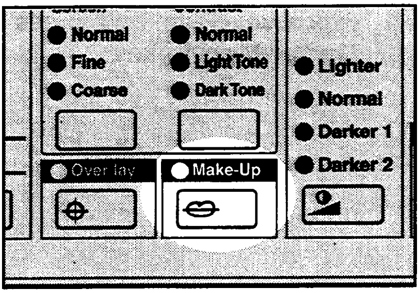
9 The beeper sounds after the command sheet is scanned. Set the original face down on the exposure glass and press the **Master Making** key.


Master Making
Stop
Print Start

Pattern Modes (One Command Sheet)

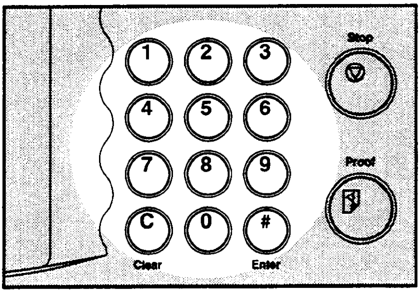
1 Press the **Make-up** key.

❒ If you want to leave Make-up mode at any time, press the **Make-up** key again.

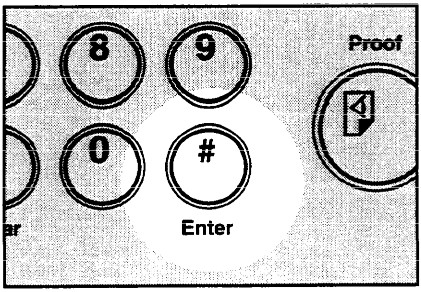

Normal
Fine
Coarse
Normal
Light Tone
Dark Tone
Lighter
Normal
Darker 1
Darker 2
Over lay
Make-Up

2 Using the **Number** keys, select the Make-up mode for the designated area. (☛ See page 5.)

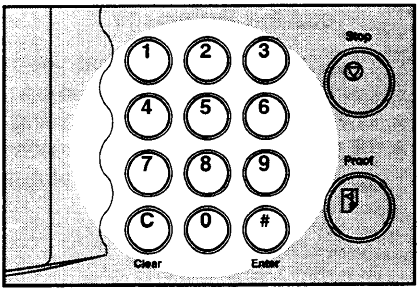
Fn5 or Fn15
... Image pattern mode
Fn6 or Fn16
... Area Pattern mode
Fn7 or Fn17
... Image outline and area pattern mode


1
2
3
4
5
6
7
8
9
C
0
#
Clear
Enter
Stop
Proof

3 Press the **Enter** key.

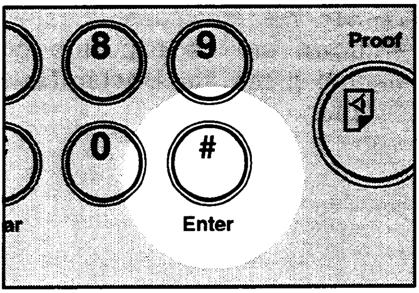

8
9
Proof
0
#
Enter

4 Using the **Number keys**, select the background pattern number (1 ~ 40, 51 ~ 90, 101 ~ 140, 151 ~ 190). (☛ See page 7.)


1
2
3
Stop
4
5
6
7
8
9
Proof
C
0
#
Clear
Enter

5 Press the **Enter** key.

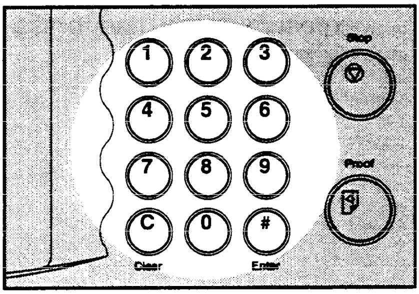
- ☐ If a Fn No. (command number) was entered previously and remains in memory, press the **Clear** key.
- ☐ Commands entered previously are stored in memory until the main switch is turned off or the **Clear Modes** key is pressed.


8
9
Proof
0
#
ar
Enter

6 Press the **Enter** key again.

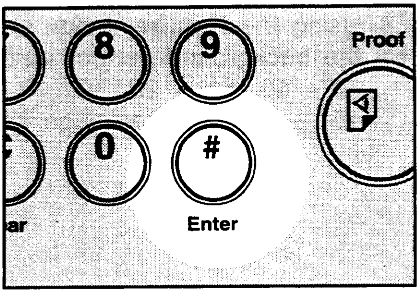
7 Using the **Number** keys, select the Image Make-up mode for the outside area. (☛ See page 6.)

Fn1 ... Line mode
Fn2 ... Outline mode
Fn3 ... Delete mode
Fn4 ... Photo mode

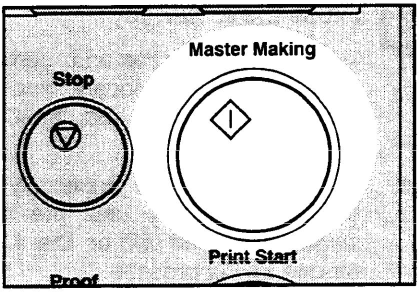

1
2
3
Stop
4
5
6
7
8
9
Proof
C
0
#
Clear
Enter

8 Press the **Enter** key.

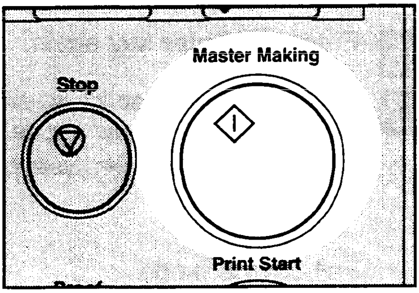
❒ To check the modes that you have entered, press the **Make-up** key twice and then keep pressing the **Enter** key to display the modes on the guidance display one at a time.


8
9
Proof
0
#
ar
Enter

9 Set the command sheet face down on the exposure glass and press the **Master Making** key.


Master Making
Stop
Print Start
Proof

10 The beeper sounds after the command sheet is scanned. Set the original face down on the exposure glass and press the **Master Making** key.

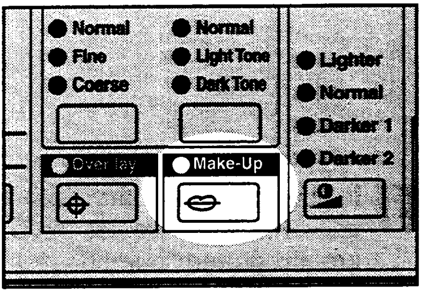

Master Making
Stop
Print Start

Using More Than One Command Sheets

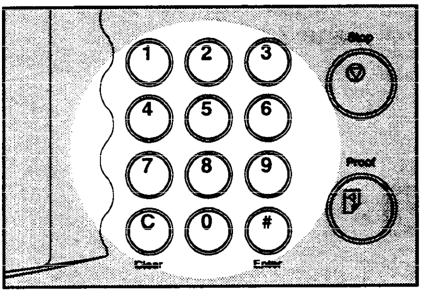
☐ You can combine up to 4 command sheets to make a master.

1 Press the **Make-up** key.

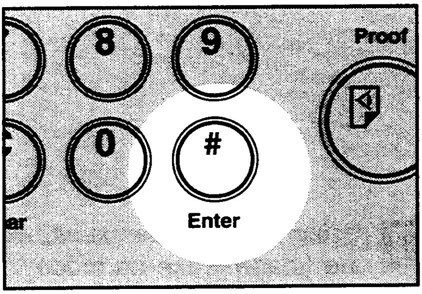
☐ If you want to leave Make-up mode at any time, press the **Make-up** key again.


Normal
Fine
Coarse
Normal
Light Tone
Dark Tone
Lighter
Normal
Darker 1
Darker 2
Over lay
Make-Up

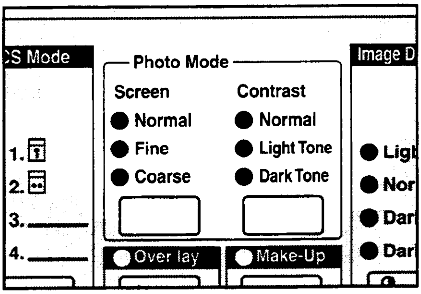
2 Using the **Number** keys, select the image Make-up mode for the first command sheet. (☛ See page 5.)


1
2
3
4
5
6
7
8
9
C
0
#
Clear
Enter
Stop
Proof

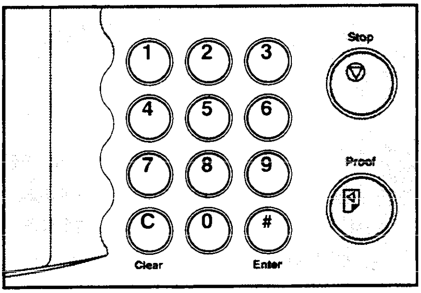
3 Press the **Enter** key.


8
9
0
#
Enter
Proof

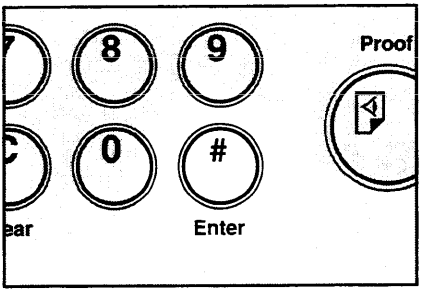
4 If you have selected fn4 or 14, adjust the screen and contrast using the **Screen** and **Contrast** keys.


S Mode
Photo Mode
Screen
Contrast
Normal
Fine
Coarse
Normal
Light Tone
Dark Tone
1.
2.
3.
4.
Over lay
Make-Up
Image D
Ligh
Nor
Dar
Dar

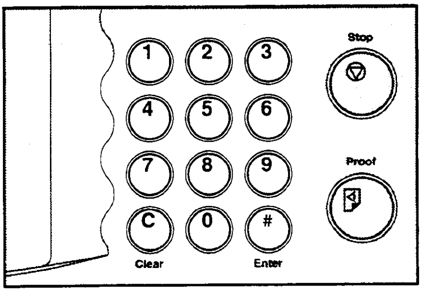
5 If you have selected Fn5, 6, 7 or Fn15, 16, 17, enter the background pattern number (1 ~ 40, 51 ~ 90, 101 ~ 140, 151 ~ 190) with the **Number** keys. (☛ See page 7.)


1
2
3
4
5
6
7
8
9
C
0
#
Clear
Enter
Stop
Proof

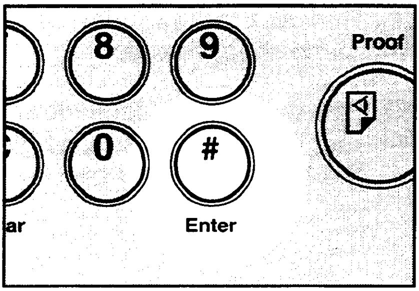
6 Press the **Enter** key.


8
9
0
#
ear
Enter
Proof

7 Using the **Number** keys, select the Image Make-up mode to be applied to the next command sheet. (☛ See page 5.)


1
2
3
4
5
6
7
8
9
C
0
#
Clear
Enter
Stop
Proof

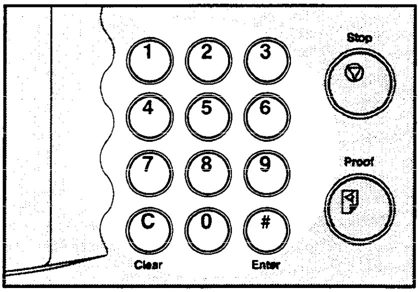
8 Press the **Enter** key.


8
9
Proof
0
#
ar
Enter

9 To use more command sheets, repeat steps 7 and 8.

10 Press the **Enter** key.

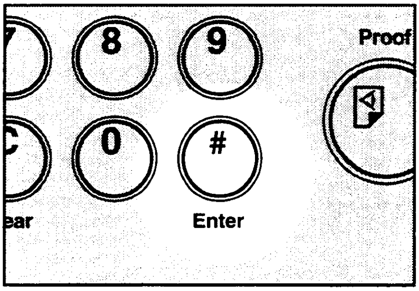
11 Using the **Number** keys, select Image Make-up mode for the outside area. (☛ See page 6.)


1
2
3
Stop
4
5
6
7
8
9
Proof
C
0
#
Clear
Enter

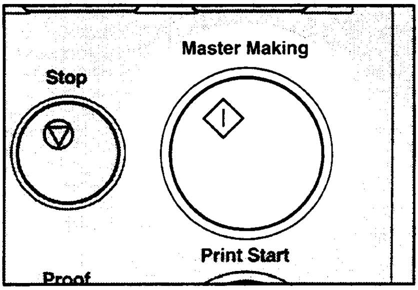
Fn1 ... Line mode
Fn2 ... Outline mode
Fn3 ... Delete mode
Fn4 ... Photo mode

12 Press the **Enter** key.

❒ To check the modes that you have entered, press the **Make-up** key twice and then keep pressing the **Enter** key to display the modes on the guidance display one at a time.

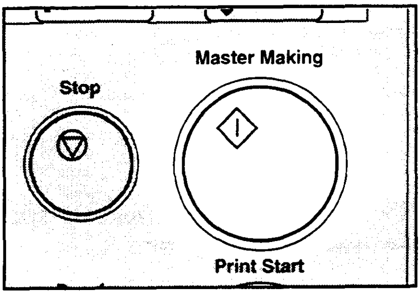

8
9
Proof
0
#
ear
Enter

13 Set the first command sheet face down on the exposure glass and press the **Master Making** key. The beeper sounds after the command sheet is scanned.


Master Making
Stop
Print Start
Proof

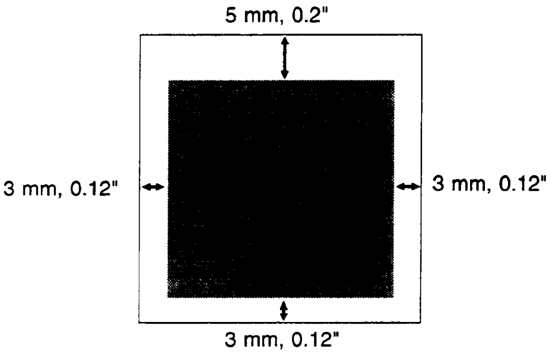
14 Repeat step 13 until all command sheets are done.

15 Set the original face down on the exposure glass and press the **Master Making** key.


Master Making
Stop
Print Start

Make-up Printing With The Optional Document Feeder

- Under the following conditions, you should set command sheets and original on the exposure glass.
  - When using paste-up originals.
  - When the command sheets and original are of different size.
  - When you use command sheets or originals made from roll-paper.
- When using coated paper or transparent paper as a command sheet, set the command sheet and original separately into the document feeder.
- With the optional document feeder, you can designate areas to be edited in Make-up mode inside the limits given below:

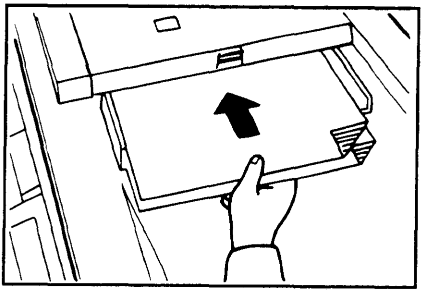


How to make prints in Make-up mode with the optional document feeder

1. Press the **Make-up** key.
2. Set the desired Fn No. and press the **Enter** key.

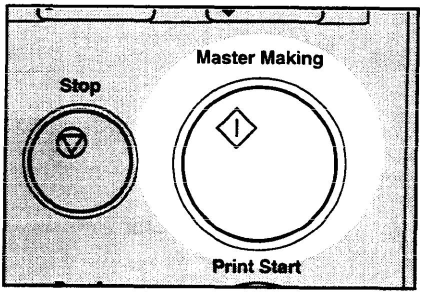
3 Set the command sheets and original face down into the document feeder.

- ❒ Make sure that the command sheets are set under the original when you use the 20 originals document feeder.
- ❒ Make sure that the original is set under the command sheets when you use the 50 originals document feeder.



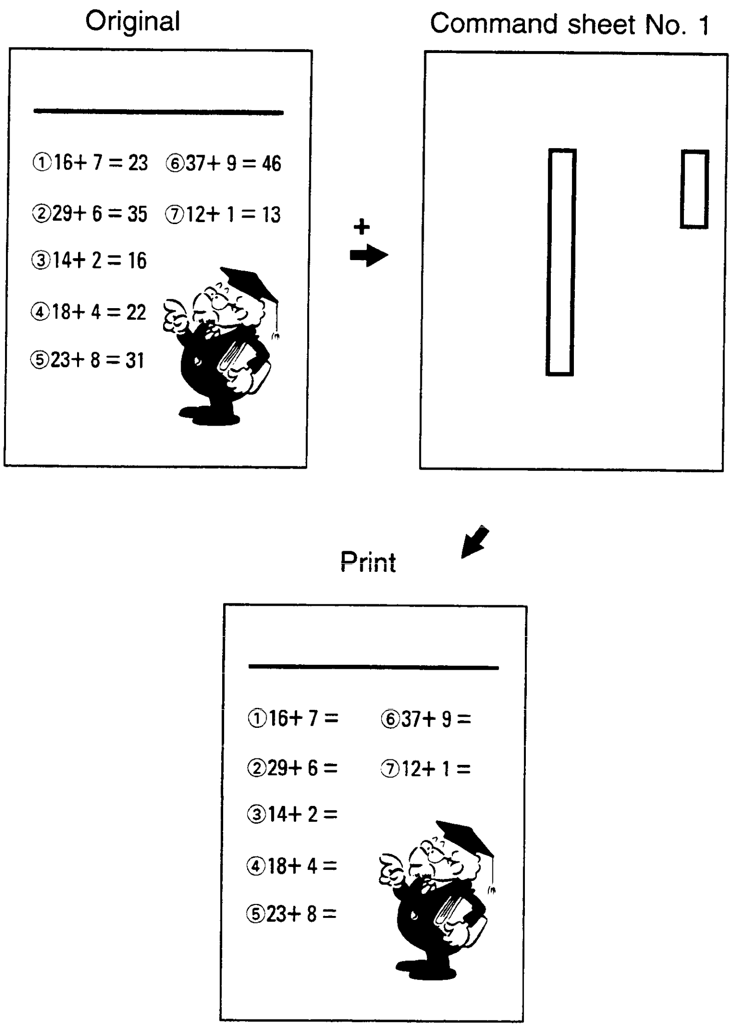
4 Press the **Master Making** key.

- ❒ If a command sheet or an original misfeeds, remove the misfed command sheet or original and reset it into the document feeder. It is not necessary to reset the previous command sheets or original.



MAKE-UP SAMPLES

1. Command Sheet No. 1, Designated area: Fn3
2. Outside area: Fn1
3. Print


Original
Command sheet No. 1
+
Print

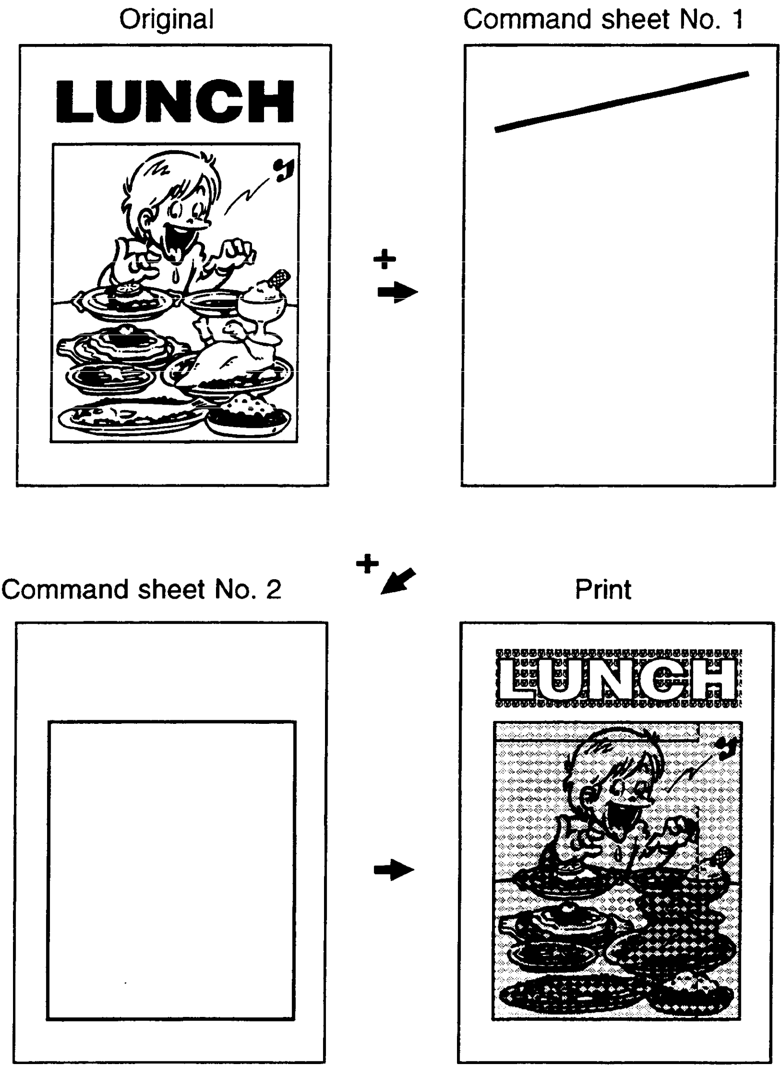
Original

①16+ 7 = 23 ⑥37+ 9 = 46
②29+ 6 = 35 ⑦12+ 1 = 13
③14+ 2 = 16
④18+ 4 = 22
⑤23+ 8 = 31

Print

①16+ 7 = ⑥37+ 9 =
②29+ 6 = ⑦12+ 1 =
③14+ 2 =
④18+ 4 =
⑤23+ 8 =

1. Command Sheet No. 1 Designated area: Fn17 Pattern No. 80
2. Command Sheet No. 2 Designated area: Fn 6 Pattern No. 67
3. Outside area: Fn1
4. Print


Original

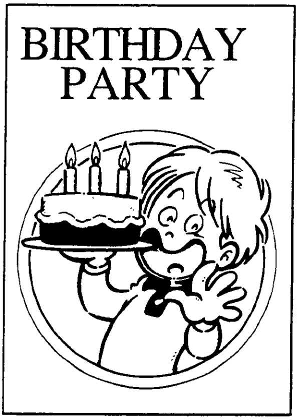
Command sheet No. 1

Command sheet No. 2

Print

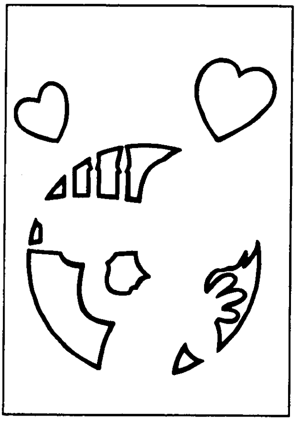
1. Print the original as it is
2. Change the drum unit for color printing
3. Command Sheet No. 1   Designated area: Fn6 Pattern No.89
4. Outside area: Fn3
5. Print

Original

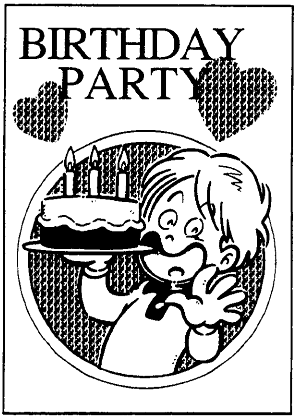

BIRTHDAY
PARTY

+ →

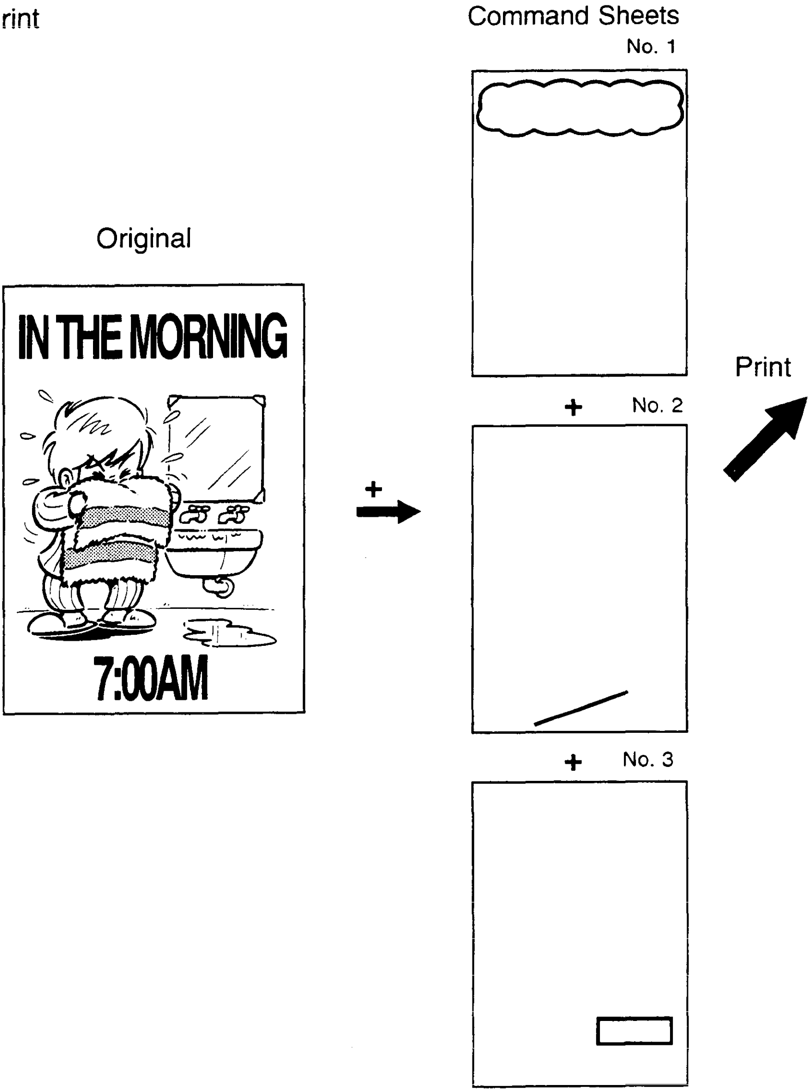
Command sheet No. 1

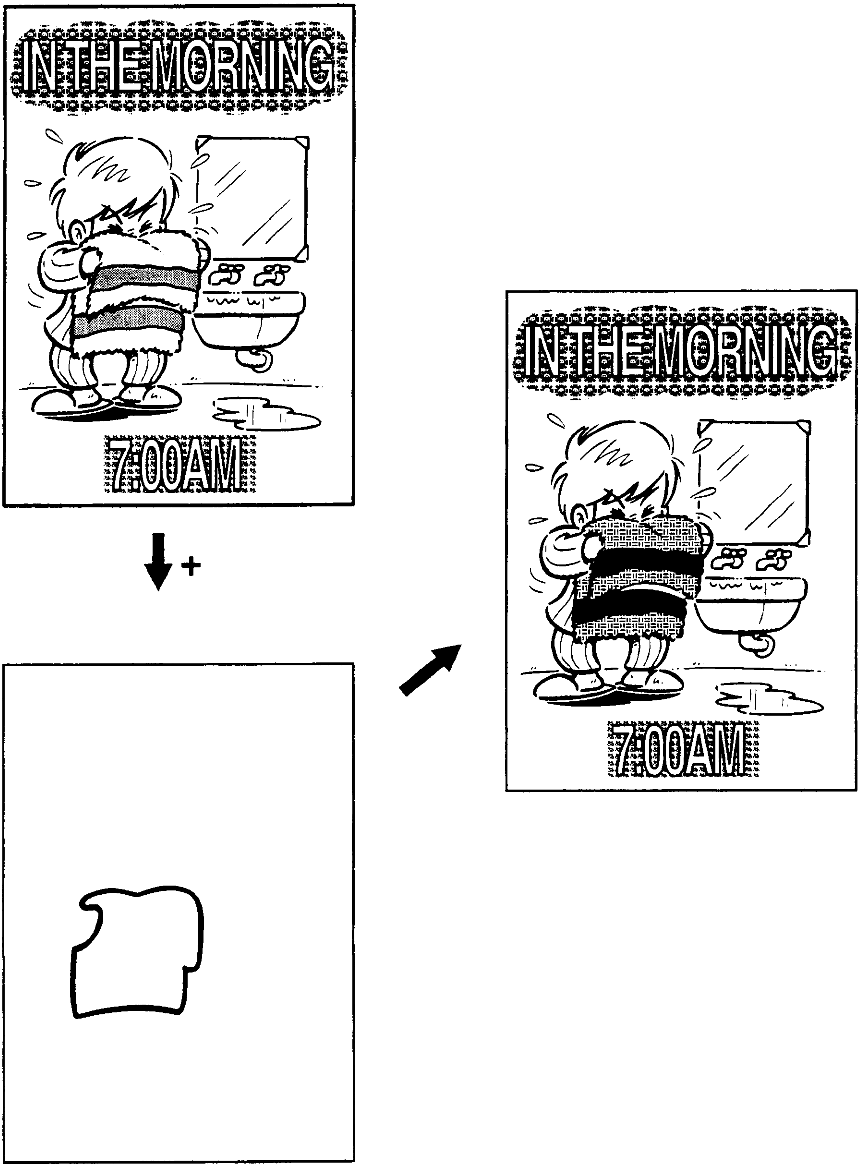


Print ↙


BIRTHDAY
PARTY

1. Command Sheet No. 1 Designated area: Fn7 Pattern No. 75
2. Command Sheet No. 2 Designated area: Fn17 Pattern No. 85
3. Command Sheet No. 3 Designated area: Fn3
4. Outside area: Fn1
5. Print
6. Change the drum unit for color printing
7. Command sheet No. 1 Designated area: Fn7 Pattern No. 61
8. Outside area: Fn3
9. Print


Command Sheets
No. 1
Original
IN THE MORNING
7:00AM
+
Print
+ No. 2
+ No. 3


IN THE MORNING
7:00AM
+
IN THE MORNING
7:00AM